

The CHILDREN'S NEWSPAPER

AND CHILDREN'S PICTORIAL

The Story of the World Today for the Men and Women of Tomorrow

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A LOVELY WINTER'S TALE

See
Below

CAPTURE OF A GIANT PANDA

NEW KIND OF ANIMAL
FOR A ZOO

Remarkable Story of an
Adventure in High Asia

THE CUB IN THE PLANE

For the first time in history a giant panda, the Himalayan animal which for half a century was regarded as a new kind of black and white bear, has been taken alive, and is now on its way to the Bronx Zoo at New York.

So weird in its appearance, so curious in its appetite, and so inaccessible in its haunts, this creature had become the bogey of the animal world, and few stories are more extraordinary than that of the final capture of this particular specimen of this rare and peculiar beast.

An American lady set out in search of it, found an abandoned cub in its nest, and hurried it off to civilisation, making the last stage of her journey in China by aeroplane.

A Never-Never Land

Until half of the Victorian era had passed into history no white man had ever set eyes on the giant panda, though its cousin the little panda, which has a wider range and is found in Nepal, was known to science. In 1868 Abbé Armande David, the famous missionary, naturalist, and explorer of the wilds of China, discovered this strange animal in Moupin, a district in the Chinese province of Sze-chuen not far from Tibet. Here the Himalayas swing round into China, and on their slopes grow vast forests of rhododendrons and bamboos. With very wet summers and with heavy falls of snow in winter, the home of the giant panda is truly a Never-Never Land.

The Abbé described his find as a bear, though according to the natives it never eats flesh, flourishing on the young shoots of bamboo. Very little, however, could be gathered about its general habits, naturalists in the 19th century having nothing to work on but a few skins and skeletons sent home by missionaries.

An Eerie-Looking Creature

The size of a small brown bear, the giant panda is mainly white, but all its legs are black, the black fur extending above the front legs to meet over the back and give an eerie aspect to the creature. This eeriness is increased by small black ears and black rings round the eyes, as if it had donned dark tortoiseshell eyeglasses. The fur is long and close, with a thick woolly undercoat, Nature having suitably wrapped up this queer child of hers. The tail is short, and other unusual features are hairy soles to its feet and the widest head in proportion to the body in its special branch of the animal kingdom. Indeed, no bear has a more powerful

Time Marches On



On the top of the United Kingdom—Scouts on Ben Nevis

jaw, and its teeth led naturalists to class it with the true panda.

Such an animal in such a land was a challenge to the boldest explorer, and in 1928 Kermit and Theodore Roosevelt obtained a splendid specimen which they had tracked during a snowstorm. Three other giant pandas have been shot and brought home since, one of these being on view in a Piccadilly shop last autumn.

Two years ago another American, Mr W. H. Harkness, went to China, resolved to take a giant panda home alive, but many difficulties were placed in his way, and he died before anything could be done. His wife determined to carry on his task, and, arriving at Shanghai last summer, she persuaded the authorities to let her make an attempt in spite of bandits and natural difficulties.

Accompanied by a young Chinese explorer named Quentin Young, Mrs Harkness made her way to Chengtu, capital of Sze-chuen, and set out from there on the dangerous ascent of the mountainous country to the north-west.

A stroke of good fortune brought the quest to an early and happy conclusion, for the explorers came suddenly upon a

mother panda with her newly-born baby in a nest in a hollow tree. The mother ran away, and Mrs Harkness picked up the cub and turned back.

In one respect her difficulties had now only begun, as the baby had to be kept alive while she made her way back to civilisation. The first thing was to feed the baby, and Quentin Young devised an ingenious scheme. Putting on his fur-lined coat inside-out, he fondled the tiny ball of fluff and persuaded it to suck warm milk out of a bottle. This solved the food problem. There remained the problem of warmth. The two explorers surrendered everything they could spare to keep the little creature dry and warm—their blankets, their fur coats, all their spare clothing. They learned to love the little animal, which cried like a human baby, and named her Su-lin.

Su-lin travelled from Chengtu by air to Shanghai, and by all accounts was none the worse for her journey. It is time, however, that the Bronx Zoo, to whom the C N sends its congratulations, began to grow a bamboo plantation, for Miss Su-lin will soon be past the bottle stage, and will be cutting her big teeth.

THE HAPPENED

A Winter's Tale Good
Enough For Shakespeare

THE UNEXPECTED ROUND THE CORNER

We have just heard of a Winter's Tale as strange and lovely as any invented by Shakespeare.

The story begins about 70 years ago, when a baby boy was born on a farm in Denmark. Jes Toft was his name, and he grew up to be a sailor.

Having come to man's estate he fell in love and got married, but he did not give up the sea for that. He had, on the contrary, as adventurous a life as any of the old seafarers, first as captain of a Danish ship and later of an American one. In the Russo-Japanese War he broke the Japanese blockade before Port Arthur and was awarded a medal by the Russian Government for his bravery and skill. In time he acquired a reputation which spread over the length and breadth of the Pacific.

A Perilous Voyage

At the time of the great San Francisco Exhibition a rich American wished to have a Japanese junk brought over to California under its own sail, and as no one else dared so perilous a feat the job was offered to Jes Toft. He accepted and brought the adventure to a triumphant conclusion; but the American, through a legal quibble, evaded his own part of the agreement, and Captain Toft, chagrined over the meanness of mankind, went off on another long cruise and was not heard of again.

The war broke out and dragged to its weary close, and still he did not return, so that it was assumed he must have fallen a victim to the U-boat campaign, and he was officially declared to be dead.

Mrs Toft, then in middle life with two small girls, started a boarding-house. She did not have an easy time, but she won through, and having put her two grown-up daughters in good professions she thought there was nothing left for her to do but to wait placidly for the end.

The Joy of Reunion

But often what we take for blind alleys in life are only concealed turnings, with the Unexpected just round the corner; and the Unexpected came to Mrs Toft and her daughters in the shape of a sealed envelope with American stamps on it and many American banknotes inside, as well as a letter from Captain Toft, announcing that he was not only alive and well, but after many struggles was fairly well off at last, and was coming home to spend his remaining years with his family "in a nice little house in the country where we shall all be happy together."

Perhaps it will seem worth while to have spent half a lifetime alone in stress and trouble for the joy of such a reunion.

SPANISH WAR AT A STANDSTILL?

General Franco and His Foreign Army

VICTORY FAR OFF

Six months have gone by since the Spanish war began, and six weeks since the German Government recognised General Franco's Junta as the legal Government of Spain.

There must be many in Germany who think their rulers have been in too much of a hurry, for the expected victory of the rebels has not come, and both sides seem to have fought themselves to a standstill in the north-west suburbs of Madrid and in the provinces.

What of the immediate future? Are the dread forces General January and General February to control the fate of the armies in the field, impartial and relentless in their onslaught and aided by famine and pestilence? Many people in all countries think the Great Powers should decide.

Events have shown that General Franco is no Napoleon, and that he has none of the genius that can bring a campaign to swift crisis and conclusion. Were it not for his dark-skinned Moors and his German allies his revolt would have met with the fate it merited. His principal successes have been won with his bombers, and the bomber of women and children must find his popularity fast slipping away.

Italy and the Balearic Islands

In these days the strong alliance between France and this country in the common cause of preventing armaments from reaching Spain is beginning to have effect. There are signs that the Dictators may soon subscribe to non-intervention in deeds, as in words. Italy has already given assurances to this country that she will observe the status quo in the Eastern Mediterranean, so implying that she has no intention of adding the Balearic Islands to her possessions.

The plain speaking of Mr Eden, who openly accused Germany, Italy, and Russia of violating the Non-Intervention Agreement, has shown these countries where their past policy must lead them, and none of them is willing to be a protagonist in such a struggle. On the contrary, the great opportunity is here for them to seize, joining with a united France and Britain in bringing the factions in Spain together and helping to ensure stability to a war-worn nation.

Germany with her ration cards and Italy with her heavy debts must surely welcome the cessation of this cruel strife, and their Dictators must especially welcome it, for their friend General Franco has proved that Dictators are not always victorious, even when they attack their native land with foreign troops and foreign bombs.

WHISPERING TO BAGHDAD

We shall soon be able to whisper in London and be heard in Baghdad, the city of the Thousand and One Nights; any day now the telephone will be open to the city of Haroun-al-Raschid.

From London to Cairo the message will travel by wireless; from Cairo to Baghdad a land line will carry it, and in return Irak will be able to talk in the same way with the whole world.

Will not the natives, when they hear of these wonders, believe that, after all, the old stories told of Virgil were true, and will not those who disbelieved be put to shame by the facts? For it was told that Virgil travelled with the speed of light, not only to Baghdad but to Babylon, and the old nursery rhyme might have been written of him:

How many miles to Babylon?
Three score and ten.
Can I get there by candle-light?
Yes, and back again.

BIRDS TO SING IN THE KING'S TREES

A Plague of Snails and a Song of Praise

Canberra, the Australian capital, is suffering from a plague of snails, and a cargo of English thrushes has been sent out to keep them in check.

The birds are to be liberated in a scene of natural plenty, and it is hoped they will settle down and multiply, and gladden Australia as they gladden us at home with the glory of their delightful song.

The birds will find it strange at first, for the clock Nature winds up in them will urge that it is summer-time, the period of song and nesting, when, the seasons being reversed there, winter is over Australia. But no British bird sent down South has yet failed to adapt itself to the altered conditions, and we may be sure that the hardy thrush will not prove the exception.

One romantic fact is that the thrushes will find awaiting them as nesting-sites trees which our King and Queen planted. When they visited the Commonwealth in 1927 to open the Australian Parliament's new buildings the occasion was made the time for a very pretty ceremony, the result of which was that oaks planted by the King, elms planted by the Queen, as well as beech, horse-chestnuts, alders, and cricket-bat willows, all taken out from Kew, were well and truly established in the earth, and should now be ready for the newly-arrived birds.

It is believed that from seedlings and cuttings of these trees a miniature forest will spring up in the federal capital, and now we may hope that in the King's trees the birds will sing their songs of praise to Nature, a happy outcome indeed of a plague of unwanted snails.

Farewell

To Philip Mainwaring Johnston,
architect and antiquarian

His work is to be found in all the counties at London's gates, sometimes in an old church or priory or manor house which he restored, sometimes in a modern church he designed with furniture, sometimes in a peace memorial.

Mr Johnston brought the spirit of the past into the present and saved many a medieval treasure for future generations to enjoy. He was architect to Chichester Cathedral, and made the churches of Sussex and Surrey especially his own. In Prittlewell Church and Priory Southend has lasting memorials of his work, while all lovers of Shakespeare are in his debt for his work for the Stratford Preservation Trust.

To Sir John Bland-Sutton, the brilliant
surgeon, who has passed away at 81

It is said that it was his love of animals as a youth that led him to enter the profession of healing, and to the end of his long life the Zoo knew him well. As a surgeon he was of the first rank, specialising in those internal operations from which it was a miracle to survive before he began to practice.

Beginning life as a poorly-paid pupil teacher, by hard work and a habit of curiosity which made him unusually alert he rose to both fame and wealth; but he was spoiled by neither, giving generously to Middlesex Hospital, which he had saved so eagerly to enter as a student, and winning and keeping friends by his wonderful charm. He travelled widely, and wrote books about what he saw, and his lectures were always brightened by wit and allusions to the animal life he loved so well.

To Mr Fred Turner, organist

For over half a century he was organist at Wellington Church in Glasgow, and never missed a service till last August. Yet for 72 years he was blind, and triumphed over his infirmity until the very end.

OUR WONDER MAN AGAIN

Lord Nuffield After Rockefeller

CHRISTMAS MILLIONS FOR THE POOREST OF THE POOR

Mr Rockefeller must look to his laurels. Lord Nuffield is after him.

Our great motor king has been giving away more millions—two more millions at one stroke to the very poorest of the poor, to lift up their hearts at Christmas time and give them hope for 1937.

There has been no Englishman like Lord Nuffield in our time, or in any other time. America has had rich men who gave away huge sums, so great that ordinary people can hardly comprehend them; but our rich men have not been on that scale, or have not given on that scale. Let us hope that Lord Nuffield is the pioneer of a race of rich men who will give back to the country what the country has given.

The motor trade has not a very great pride in itself or its work, but Lord Nuffield is its grand exception, and the whole English-speaking world is proud of him. He stands before us as a supreme example of unselfishness and the desire to be useful to his country.

The Claims of Jarrow

The £2,000,000 just given by Lord Nuffield is given for the Distressed Areas, and it will be a wonderful stimulus to all who are helping to rescue these Areas from the Slough of Despond. Sir John Jarvis, with the help of the County of Surrey, has done wonders to give new heart to the people of Jarrow, and Lord Nuffield's gift comes as the biggest Christmas box and the biggest piece of good cheer that the Distressed Areas have ever received. Three trustees will administer this fund, and we may look forward to splendid results.

One thing stands out at this time which should make us all ashamed of our indifference to the claims of Jarrow. For the 31st time in 22 years white gloves have been presented to the magistrates because there was no crime in Jarrow.

It is a remarkable testimony to the character of this town, and the country owes it to its own dignity to join hands with Lord Nuffield and save its people.

Lord Nuffield's latest benefaction makes his total gifts between £7,000,000 and £8,000,000—a marvellous achievement by a man who began life mending and making bicycles.

OLIVER TWIST'S WALK

A general knowledge paper set for a school in the Isle of Man for the holidays, so interesting and difficult that it has been reproduced in The Times, contains a question which provokes controversy.

How far was Oliver Twist's walk to London?—that is the information sought. One of our readers answered without hesitation. Seventy miles!

It seems that that answer, however, would bring a black mark, for, when he saw the stone by the highway giving that number of miles as the distance, Oliver had covered nearly five miles in his flight from the scene of his misery.

But if that extended figure were given experts would be equally dissatisfied, and, in spite of the evidence, would have us answer 34, for they say that the laying of the scene in the north and Oliver's entry into London by way of Barnet was only Dickens's pretence, and that Rochester was actually the place.

There, they say, all the incidents of Oliver's early unhappy days can be traced to places still existing, even to the little churchyard, the scene of the pauper's funeral, as made clear in Arthur Mee's Book of Kent. We imagine, however, that 74 would be the answer required by the author of the question.

LITTLE NEWS REEL

At 95 Mr Stephen Baker, who lives near Leeds, believes in walking a mile and back again every day. He has no aches or pains, and is happiest when working in his garden.

Congratulations to Mr and Mrs J. Frederick of Melbourne, who have been keeping their 70th wedding anniversary. They are a fine example of Darby and Joan, for Mr Frederick is 100 and his wife is 93.

A Washington lawyer has just been counting the number of laws now in operation in U.S.A. They reach the total of 1,156,644.

The Underground in London carried a million more Christmas shoppers this year than last.

A man charged at Bow Street police-court the other day with begging had £3.0.

Onions worth £35,000 are to be sent to Germany from Egypt in part payment of a bridge the firm of Krupp is building over the Nile.

THE CELLULOID COMB AGAIN

Two children narrowly escaped with their lives in Hertford the other day as the result of a celluloid comb catching fire.

The blazing comb fell on a chair and the whole house was burned to the ground, not one article of furniture or clothing being saved. A little girl of five had returned home with a friend while her father and mother were absent, and a few moments later she was seen rushing out shouting that she had set a chair on fire. The neighbouring houses were for a time in great danger.

COUNTING THE DEER

About 30,000 reindeer roaming the frozen wastes of Alaska are now being rounded up, not by Santa Claus, but by Eskimos wrapped in furs, who have travelled 500 miles across country from Barter Island to count and mark them.

They have their work cut out, for the reindeer are driven about 50 miles inland to be counted.

THINGS SEEN

Two cars stopped on a Hampshire road by a flock of starlings.

Apples on a tree in Christmas week.

Two paintings on the wall of Westminster Abbey brought to light after being hidden for centuries.

A country lane in Kent littered with shavings thrown from packing-cases.

Rubbish from boxes on a lorry blowing all over the Thames Embankment.

THINGS SAID

Wouldn't it be better to evacuate all the Spaniards from Spain and leave the other nations to fight it out?

Miss Ellen Wilkinson, M.P.

I have tried to keep my columns clean; the garbage of the gutter should be left to the cleansing authorities.

Sir Robert Bruce retiring after 50 years of journalism

Man is not a rational animal, though he may be in process of becoming so.

A famous doctor

The development of aviation is making frontiers as obsolete as the toll-gate.

Sir Walter Langdon-Brown

We are going to make London the finest city in the world.

Mr Herbert Morrison, M.P.

Men who are heroes as well as right livers are of enormous importance today.

Admiral Sir William Fisher

The world needs a great body of opinion that thinks right and does right.

Commander-in-Chief at Portsmouth

THE WAY TO BETTER THINGS

What We Should Do

We do not know who writes the pamphlets of those who are now appealing for a combination of all parties, but have not the authors been steady readers of the C N? We take this from one of the appeals, so full of wisdom and understanding.

Britain must be rebuilt. This is the answer to unemployment! With democratic control of our national finances a policy of public works in the public interest becomes possible. There is enough to do. The Government could utilise our great reserves of unemployed resources for the final elimination of the slums, the laying out of recreation grounds, the provision of adequate water supply to the villages.

Never yet have we dared to realise our productive powers to the full, to allow our land to pour out the foodstuffs of which it is capable, or to allow our people to build the new homes they need, or our scientists to concentrate on making life more spacious instead of making death more ghastly.

We want to see our towns and countryside throbbing with new life. We will not have a single soul going short of food in a land where food is thrown away. We will not have men and women working for 50 and 60 hours a week while millions of other men and women cannot get an hour's work to do. We want to lead full lives, and we want, for the first time in history, to make the best of our country. We want to see vigour, pride, and hope in the eyes of our fellow-countrymen again.

We want to see Britain taking the lead in bringing peace to the peoples of the world. We want our countryside invigorated, preserved, and kept free from ugliness and desolation. We want a society in which all that the scientist, teacher, and artist have to offer is abundantly available for all.

EARLY MASTERS OF ART

Mystery Men of the Past

An excavator's happy accident has brought to light a great treasure at Sakkara, near Cairo, revealing the burial place of middle-class Egyptian men and women who were laid to rest, wrapped in their mats and linen robes, 3000 years before the dawn of Christianity.

Buried with the occupants of some 130 graves in the sand lay objects of art and entertainment once dear to those with whom they were interred: beautifully carved objects in alabaster, schist, dolomite, and breccia, three of them vessels of a kind previously unknown. A knife of flint is so fine and thin as to be practically transparent. A statuette of an Egyptian goddess wears a silver crown, the eyebrows, necklace, and the nails of fingers and toes being of gold.

Not the least interesting of the finds is a set of draughtsmen in ivory. As the grave had never been disturbed during its 5000 years' existence it is assumed that the set must be complete. If that is so the early Egyptians played with ten fewer pieces than we do, for here are only 14 pieces.

MOST MISERABLE MEN

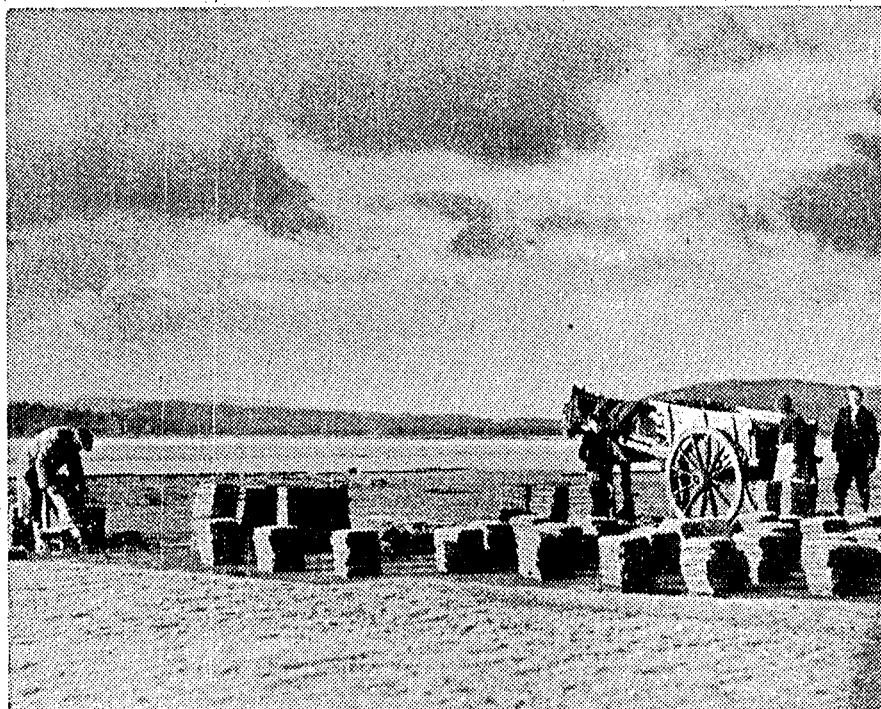
Rudston Church near Bridlington is a spot where thieves break in and steal. Twice they have broken into the money-box; but now the village blacksmith has made an iron one, and he will be surprised if thieves break in again.

Surely the thief who steals from the church box is the most miserable wretch in the world.

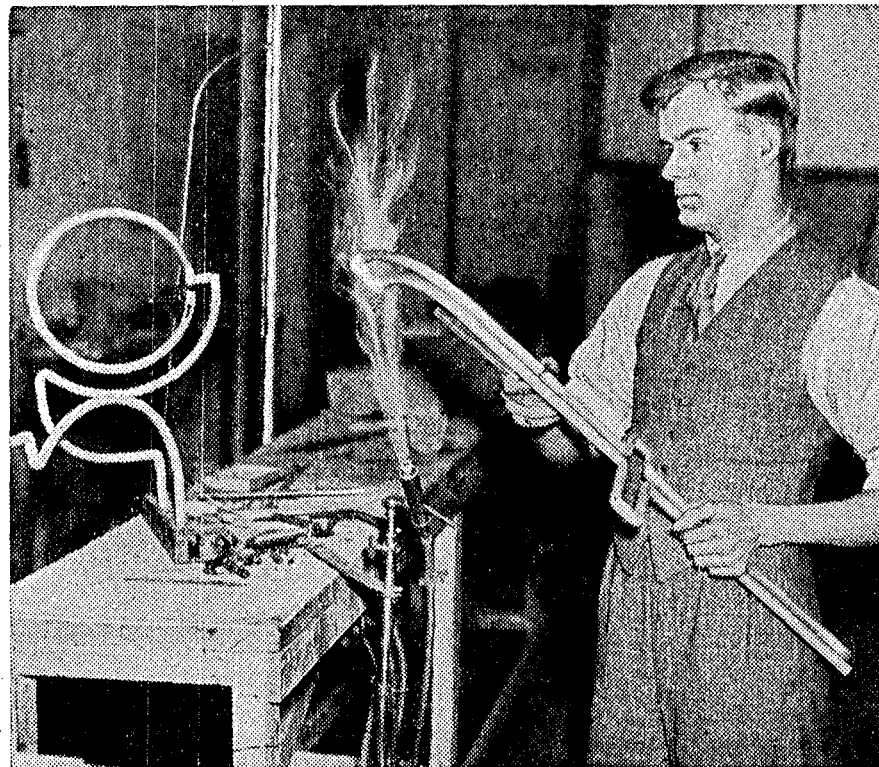
Pronunciations in This Paper

Essequibo Ase-say-kee-bo
Hamal Ham-awl
Ibadan Ib-ah-dan
Whangarei Hwahn-ga-ray-e

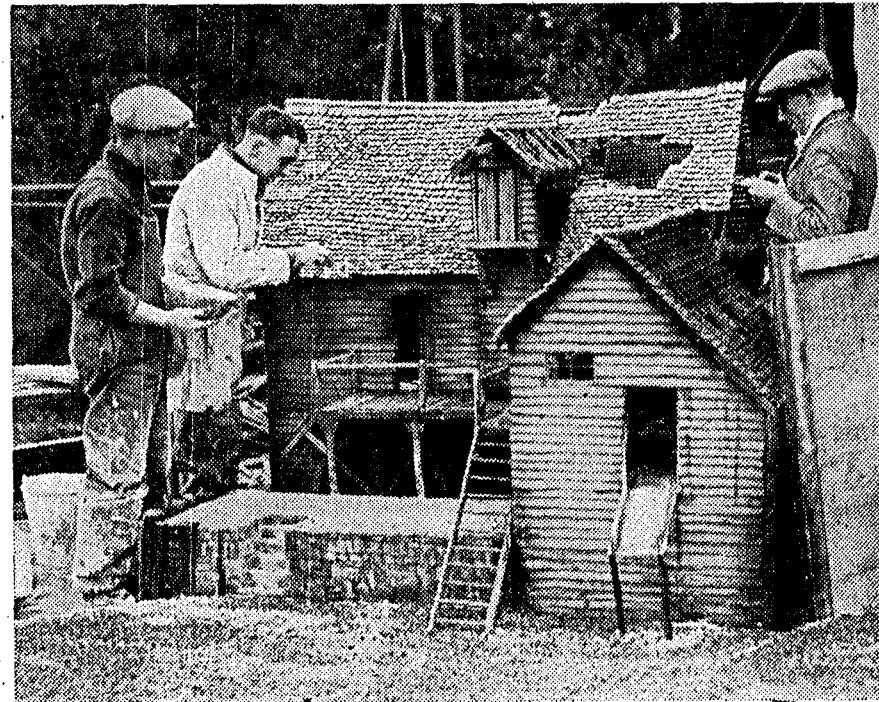
There are more people working than ever before as the New Year dawns in this country. These are some of the things they are doing.



Removing sea-washed turf at Sandside in Westmorland for use on bowling and golf greens



Bending neon light tubes for Coronation decorations



Making a model of an old mill for flood scenes in a film

TRAILING THE AMAZON FLY

Why it Stands Alone

Among the innumerable flies of the Amazon one of them stands alone.

The Amazon Fly is Public Friend Number One, far from its home in the swamps of the Lower Amazon, near Santarem. In that vast plain where the thousand channels of the earth's mightiest river wind to the sea the Amazon Fly dwells, and has for thousands of years earned its living by preying on the borer flies among the grasses.

If borers confined themselves to grasses they might be disregarded, but they also prey on the sugar cane which Columbus brought from the Old World to the New, and, finding it, they prefer it.

Such is their appetite that the sugar borers reduce the value of the sugar cane in the West Indies by one-fifth, and a remedy has long been sought for them. One parasite after another was sought in order to keep them down, but all failed.

Carrying a Motor-Boat

Then the entomologists at Trinidad thought of the Amazon Fly, and sent one of their number to find it. Mr J. G. Myers was the man, and he has lately told the tale of his search, which was as adventurous as the ancient search for the Golden Fleece. He took a motor-boat as the quickest way to the ancestral home of the Amazon Fly, which is 470 miles up the Amazon from Santarem. He was not able to take it direct, but had to go by way of Essequibo, and then carry it over the watershed of the Rio Negro and Rio Branco.

The party was wrecked more than once in rapids; they passed through forest and swamp and a malaria-ridden land, but at last came to the haunt of the Amazon Fly. Here they set up a collecting station, and found as many flies as they wanted.

The difficulty was to get them home to British Guiana. They could only be carried while in the chrysalis stage, and that lasts only nine days. But all difficulties were overcome. From the collecting station in the estuary of the Amazon the flies were taken to their new British home, and are behaving in the most satisfactory way in the sugar plantations, thanks to the care and skill of Mr R. D. Clease of British Guiana, who reared them and established them in their new home.

They are the police who take the sugar borers in charge, and are doing this work well. *See World Map*

SAVING SOUTH WALES

Great District in Distress

Many industries, from ships to beef, are now subsidised by the State—paid bounties to encourage them to go on.

South Wales enters a plea for similar assistance from the public purse. Influential people of the district have formed a Trade Recovery Committee, and have presented a strong case to the Government.

One in three of the insured workers of this Distressed Area are out of work, which really means that they are paid to remain idle, for they draw benefit.

The main cause of this distress is the loss of much of the export coal trade since 1930, representing in direct unemployment no work for 41,000 men, and in indirect unemployment no work for 17,000 men.

Oil competition has played a great part, but there is another cause. The fall, the committee says, is to a considerable extent due to subsidised foreign competition, particularly by Germany and Russia, and also to barter arrangements and credit difficulties. The industry is helpless, and the loss of markets is inevitable unless Government action is taken.

SCOTT'S SHIP FOR THE SCOUTS

Grand New Lease of Life For the Discovery

Captain Scott's old ship *Discovery* is to be given to the Boy Scouts and will brave the Antarctic gales no more.

Owned by the Government of the Falkland Islands, this famous vessel, still the strongest wooden ship in the world, is today lying in East India Dock awaiting some fresh adventure worthy of her name.

She was almost forgotten when the Colonial Office announced that they had asked the Council of the Falkland Islands to hand her over to the Boy Scouts, knowing well that the Scouts will keep her as a living memorial to Scott and all Polar heroes, and will use her for training youth in those high qualities of mind and hand which those who sailed in her always showed.

The *Discovery* will now become the headquarters of the Sea Scouts, and a rendezvous for Deep Sea Scouts. She will be a hostel for overseas Scouts visiting London, especially those of British origin, and all the time she will be used as a training centre, poor and unemployed Scouts having first claim.

Guarding Her Memories

It is intended to place prominently on the ship the arms of Captain Scott, those of the Falkland Islands, and those of the Hudson Bay Company, and to fit out the ship for its new work.

She is a little ship, only 736 tons, but what a tale of high endeavour is linked with her! She was the first ship on which Captain Scott went to the Antarctic, taking young Ernest Shackleton with him. Neither of those captains can sail in her again. Both have passed on: the first lies buried in the Antarctic snows, the other's grave is in the storm-swept island of South Georgia.

One other captain sailed in her twenty years after Scott had lain down in the snow to die. He went back, as every Polar explorer will if he can, to the Land of the Blizzard in the Far South. But since then the *Discovery* has slept in East India Dock guarding her memories. She has been frozen in the ice floes of the Great Ice Barrier. She has seen men endure every hardship for the sake of an ideal. She has come back while they have stayed.

In the years to come she will welcome many a lad with high ideals and high aspirations; may there be among them another Captain Scott and another Ernest Shackleton!

FROM HOLY LAND

This Christmas a few people up and down the land may have received a gift from an American firm.

The firm seems to have spared no expense in order to make Christmas as real as possible. They have sent out coloured prints showing the Adoration of the Three Kings, and they must have shipped the pictures to Palestine and had them posted there, for each gift came in an elaborate wrapper bearing a Palestine stamp, and a label with a star and the words *From Bethlehem in the Holy Land*.

A Christmas present from the home of the first Christmas is thrilling indeed.

THE SAFETY TANK FOR PLANES

It is reported that an improved fuel tank for aeroplanes has been invented. Fire risk when a plane crashes is very great, and it is hoped the new device will rob aviation of its chief terror.

The new tank is made without rivets, so that it cannot leak. Dropped from a height in tests it has withstood every impact. It is necessarily a little heavier than the ordinary tank, but the difference is slight when the gain in safety is taken into account.

NOT ENOUGH BUILDING

Surprising Decline

For some little time now building has been falling off, and in November there was a great decline.

In November, 1935, local authorities reported the approval of £10,627,000 worth of new building; but last November the plans approved amounted to £9,421,000.

The biggest reduction was in houses, the figure being £6,268,400 compared with £7,676,400 in November 1935. That is a very big fall.

There were increases in the erection of factories, churches, and schools.

No decline in building homes appears to be yet justified, for great areas of unhealthy brickwork need to be renewed. Apart from the slums, millions of houses exist which have little modern comfort.

FOR EVER IN THE PLACE HE LOVES

Selby's old abbey has been made new in recent years.

The last time we saw it the west end had received two new towers; and, within, amid much carving between 500 and 800 years old, we found flowers and faces and animals and birds from the hands of a sculptor of our own day.

Now Selby has still another carving in stone. It is by the doorway of the choir vestry, the smiling face and gentle eyes of a man who has never wearied in well-doing.

He is Canon Solloway, who has been a clergyman in Yorkshire for half a century, and Vicar of Selby for over half the time. He has raised money for the restoration of the abbey, has filled it with good things, and preached hundreds of times within its venerable walls. How fitting it is that for a thousand years he will still be seen in the great church which he has been so glad to serve.

OUR MOSQUITOES

Mosquitoes have become sufficiently troublesome in Hampshire to cause the Havant Council to prepare a Parliamentary Bill to give them powers to compel control.

Work of a voluntary character is already in progress, and Hayling Island has a British Mosquito Control Institute in which Sir Ronald Ross was interested. What is done is to drain marshlands or to pour petroleum on pools to prevent the laying of eggs—the larvae being only able to live in water.

There are about 20 species of mosquito in England, usually called gnats, though the less threatening name does not make them any more agreeable.

AFTER 14 YEARS

It is 14 years since John Cunningham, a Durham miner, was injured in a pit accident.

His back was broken, and no one thought he would live more than a day or two. When it was found that his injuries might not prove fatal the doctors made him a steel jacket, and ever since he has been lying on his back, a prisoner whose fetters have been lightened by hope. For John Cunningham never doubted he would rise up and walk; and now his faith has been rewarded, and he is amazing everyone by hobbling along with a stick.

THE TANKER'S CARGO

The tanker ship is usually associated in the mind with cargoes of oil which permeate everything in these remarkable vessels with their evil smell.

The tanker, however, is also employed in a sweet job, the carrying of molasses, the part of the sugar which will not crystallise. It is a thick yellowish-brown liquid. In 1935 we imported over 9,000,000 cwts of this syrup, more than half from the Dutch East Indies.

TRUDGING 70 MILES

Boy's Walk To Sarajevo

We hear the story of a ten-year-old boy who trudged 70 miles over mountains and through deep snow to buy some books at Sarajevo for his brother.

He is Rajko Kovatchevitch. The walk took him two days, and he was in constant danger of meeting wolves.

When at last he arrived at Sarajevo (where the Great War broke out) he had a cruel disappointment. He had not enough money to buy the books.

But the story of his plucky adventure quickly went round the town. Some Civil Servants made a collection, and to Rajko's delight he was given a handful of coins, enough to pay for the books.

By that time darkness had fallen, but he refused to stop the night in the town. So eager was he to show the books, with their smart bindings, to his younger brother that he insisted on starting at once for his long lonely walk across the mountains to his home at Glasnitza.

AN ELECTRIC FISHERMAN

Electric sound waves help the Loch Fyne fisherman to bring the herring to his net.

The sound waves cannot be heard on land or sea because they are so small, but they are produced electrically by pressure of quartz crystals in the echometer. This instrument sends out the waves, and when they are echoed back after striking some object in their path notes their return.

The echometer is generally used by ships to sound for the depth of the seabottom. But the waves will be echoed back by any obstruction they meet. Accordingly the instrument has been fitted to a Scottish west coast trawler. Waves sent out from it are echoed back from a shoal of herrings, if it should be in the neighbourhood, because the fish contain in their bodies sufficient air to react to the electrical charge sent out.

In this way the echometer tells first when a shoal is near, and secondly where it is. With this knowledge the Loch Fyne fishermen can go out to seek the shoal and ring it round with their nets.

THE TEACHERS TO THE KING

Among the great number of loyal messages sent to King George that sent by 150,000 teachers stood out by its enthusiasm and happiness of phrase.

It expressed the fervent hope that the new reign "may be both long and glorious, crowned by happiness, prosperity, and contentment among the peoples of the British Empire, and marked by the establishment of real and lasting peace among all the nations of the world."

"It is the aim of those for whom we speak," continues this message, "so to discharge the duties devolving on them as teachers that the coming generation of Your Majesty's subjects will constantly seek to maintain the position and prestige of our country and the empire among the nations, states, and empires of the world."

A HOUSE IN A TREE

We have just heard of a house in a tree at Bedford.

It has been built by two schoolboys, and looks very queer perched among the branches, its windows looking down on the garden. Strong enough to keep wind and weather out, it has a metal roof, electric light, a folding table, and a door with the name in fine style.

For several weeks last summer the boys postponed some alterations they had intended making, for a lodger had made herself at home in their little palace. It was a bird, which had a nest under their roof, and the boys refused to give her notice to quit till the eggs were hatched. After all, she had first claim to a house in a tree.

SUBMARINES SURVEY THE GLOBE

Finding the Shape of the Earth

Another peaceful employment has been found for the murderous submarine.

In the Caribbean Sea the U.S. submarine *Barracuda* is going to and fro on a 6500-mile cruise to find something more about the exact shape of the earth.

Its way of doing so is to measure the exact pull and gravity in the great hole or crack in the earth's crust where the West Indies archipelago bends toward South America. Here is one of the most important crumplings of the earth's crust under the ocean; and here are some of the most striking variations in the downward pull of gravity toward the earth's centre.

The *Barracuda* goes down to a depth of 75 feet so as to take them undisturbed by any tremors of her instruments, caused by the waves or currents above. Among the instruments are a crystal clock which keeps time as accurately as the clock of an astronomer, and a set of pendulums, which also beat time by their swing, but register also changes in gravity if the swing is shortened or lengthened.

While on her journey the *Barracuda* will take several thousand soundings of the depths with the help of the echoing sounder, which sends out sound waves and records the time they take in being echoed from the sea bottom.

Another expedition to study the bed of the Atlantic is to set out this month from Holland in a Dutch submarine.

The scientist in charge will be Dr F. A. Venning Meinesz, who has had much experience of this kind of work. In November 1934 he left Holland in a submarine and crossed the South Atlantic to Pernambuco in Brazil, continuing the journey to Sourabaya in the Dutch East Indies before returning to Holland in the following September. It is said to be the longest voyage ever made in a submarine, and Dr Meinesz collected much valuable information concerning the surface of the earth.

THE OLD MILL CARRIES ON

The oldest windmill working in Yorkshire is the four-sailed mill of Tollerton in the North Riding, which can be seen from the railway line near the station.

It is now in need of repair and an appeal has been made to the Society for the Preservation of Ancient Buildings.

The mill was built in 1815 by a cobbler named John Suggitt, who occupied himself for two years in building it. The present occupier is a descendant, and for many years local farmers have depended on the mill for grinding their foodstuffs.

NEW EYE FOR THE CAMERA LENS

Much more simple than relativity is an invention which has lately been patented by Professor Albert Einstein.

With the help of Dr Bucky, the X-ray scientist, he has invented a photo-electric eye for the lenses of cameras.

Far fewer films will turn into failures in the developing room, for the new device will insure correct exposure.

In the Auction Rooms

The following prices have lately been paid in the auction rooms for objects of interest.

Germaned. Fables of Filpay, 1483	£1350
Set of Wheatley's Cries of London	£380
Works of Horace, 1474	£340
17th-century Persian rug	£284
Pair of K'ang Hsi vases	£236
A Dutch Bible, 1462	£190
A Henry VII shilling	£41

A George V pattern crown piece in gold, one of the 25 issued in connection with the Silver Jubilee, was sold for £200.

CHEAPEST LOAF IN THE WORLD

But the Price May Go Up

Great Britain still enjoys the cheapest wheat loaf in the world, but the price of wheat continues to rise and it is only too likely that we shall have to pay more for our bread.

Many harvest failures in lands old and new have decreased supplies and brought in fresh demands.

The United States Department of Agriculture has issued what is called a "bullish" report on wheat supplies. The term is illuminating.

A "bull" is a speculator who buys what he does not want in the hope that price will rise and enable him to sell at a margin of profit. A "bullish" report means one that points to shortage of supply, and is therefore helpful to a bull speculator for the rise. Many people think such gambling in futures should be stopped in all countries, as it has been already stopped by some Governments.

In Europe there has been heavy buying of wheat by Germany and Italy, both short of supplies. The Italian harvest yield is far below that of recent years. We do not know what stocks are being established here, but it is presumed that some action is being taken. The wheat for three out of four British loaves comes from overseas.

Our readers will remember that the CN protested against the recent attempts to organise international action to cut down wheat-growing to raise prices. We hope that such an insane policy of artificial scarcity will not again be advocated.

It is an ill wind that blows no one any good. Higher food prices are helping farmers. In the United States, for example, the income of farmers this year is estimated to rise by £200,000,000.

THE STAR IN THE EAST

THE Star of Bethlehem may have been a wonderful conjunction of planets which took place before the birth of Jesus and must have startled many of the wise men of the East. This was the theory of Johann Kepler as long ago as 1604, and some modern astronomers believe he may have been right.

During December the famous Fels planetarium at Philadelphia attracted large crowds daily. They came to see a representation of what the sky actually looked like in Palestine at the time Jesus was born. Among the visitors one day were 700 clergy, and all gazed reverently while Mr Stokely, the director, took them back through the centuries to December 25 in the year 4 B.C. for it is likely, he said, that this was the exact date of the birth, during the reign of King Herod.

He then turned the planetarium back to show the position of the stars on December 25, 8 B.C., and then to the

same time in 6 B.C., when the planets Saturn, Jupiter, and Mars were seen close together in the western evening sky.

What an impression this brilliant spectacle must have made on watchers of the skies. Many strange beliefs there were in those days, when astrologers looked on such happenings as symbols charged with deep portent and influencing human destinies. Saturn, they believed, had a special significance for the Jews, and as the meeting-place of the planets happened to be in the constellation of Pisces, the fish, which symbolised the Jewish people, there must have been great excitement. Not long after Venus came close to Saturn and Jupiter, still in the Fish constellation, making a wonderful brilliance in the sky.

And so the Three Wise Men set out on their camels, following the sign, convinced that a great event was about to happen which would change the destinies of mankind.

The Way of an Eagle

WAY down upon the Swanee River a pig was feeding the other day—at Fargo, Georgia—when a great eagle, with a seven-foot wing-span, swooped down and carried it off.

The weight of its prey was too great to enable the bird to rise with speed, and a watcher on the railway shot it. The pig, killed by its fall, weighed 40 pounds.

There have been many such combats between eagles and animals in our own land, but the setting being the Highland forests, and the intended quarry deer, the stories are far more picturesque. Again and again eagles have been seen to swoop on deer which have been feeding near the edge of a cliff, to strike at them with their wings, and force them over the edge to fall to death, when the great birds would descend to eat at leisure.

They can carry away fawns bodily, but, like a loaded aeroplane, cannot rise direct from the ground. A hillside is

their choice, for there they can glide down and gather impetus and momentum before soaring to their eyrie.

Perhaps the finest eagle story of its sort is that told a few years ago by the Hon. Gilbert Coleridge. On a height among the precipitous Torridon Hills in Ross-shire a fawn was feeding by its mother when the sun was near its setting. The eagle approached from the rear, with the sun behind it, throwing the bird's shadow on the ground ahead.

The fawn saw the shadow, leapt aside, and took shelter behind its mother at the foot of a clump of rocks. Baulked of its prey, the splendid bird hurled itself at the mother, which sat down on its hind-quarters, and, with amazing dexterity, fought off the great bird with its fore feet, just like a boxing kangaroo.

The faithful animal aimed so well that the eagle was beaten off, and mother and fawn resumed their browsing in safety.

CARS WORSE THAN STORMS

The Murderous Road is Everywhere

In Germany, as in America and Britain, road deaths are very high.

Last year Germany had 8500 killed and 171,000 injured as against our 6477 killed and 221,726 injured. Germany, however, has 67 million people against Britain's 46 millions, so that her figures are better. But both figures are appalling.

The United States is easily worst in these unfortunate comparisons. Her yearly road deaths are now counted not in four but in five figures.

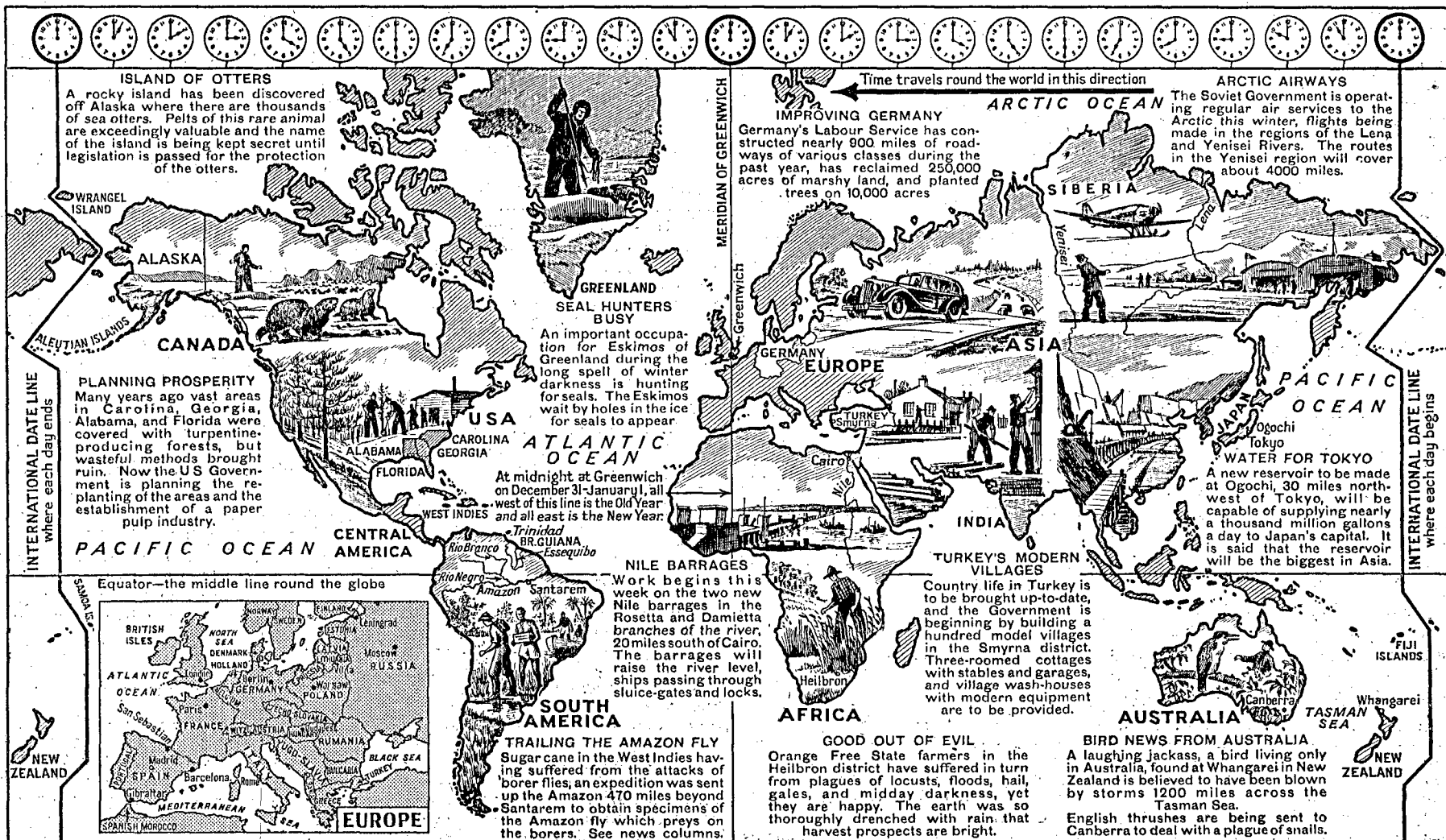
Our own road fatalities concern us chiefly, and it is astonishing that they are still tolerated. They now amount to 20 or more killed every day. Let us make another comparison. On a recent day a storm of terrible severity raged on our coasts and inland. Yet the total fatalities it caused was 17, and on the same day 20 people were killed on our roads.

DREAMING OF THE MOON

A score of boys shivering with cold are gathered in Clayton Vale at Manchester. There is a great wind roaring down the valley, but higher than the howling of the gale is the scream of rockets.

This was the scene at the last meeting of the Manchester Inter-planetary Society, of which Eric Burgess, a fair-haired boy of 16, is president. He has gathered together some enthusiasts who dream of firing a rocket to the moon.

They are studying pyrotechnics, and every month they meet at each other's houses to compare notes. Their president is to lecture to the Manchester Astronomical Society next month. The last time they experimented their best rocket travelled only 300 feet; but it was twice as good as their previous best.



THE CN PICTURE-NEWS AND TIME MAP, SHOWING WHERE THE NEW YEAR BEGINS AND HOW IT MOVES ROUND THE EARTH

The World's Time Zones. The world is divided into 24 equal zones of 15 degrees, in each of which there is a standard time based on Greenwich. The clocks at the top of this map each week show the times in the various zones when it is noon at Greenwich. At sea these

time zones are regular, except for the International Date Line areas where each day begins, but on land the boundaries of the zones are varied somewhat so as to include in the same time zone areas which are closely connected for commercial and political purposes.

CHILDREN'S NEWSPAPER

JANUARY 2 1937

Let the Trumpet Blow

TIME marches on. We are at the gate of another year. Let the trumpet sound the good news that we are marching to the better days.

Things are better everywhere. Trade is busier than it has been for years. Never were so many people at work in this country before. The absurd idea that we could not get rid of unemployment has died a natural death, and everybody knows at last that all that is wanted to get rid of idle men is to give them work to do.

A great nation like this can find plenty of work for its people if it has the will to do it. What we want to do is to get Old Obstinacy out of the way.

It is going to be a great year for the Country and the Empire and the Flag; and we may expect it to be a great year for our cousins across the Atlantic ocean, for President Roosevelt is at the helm again, and the ship with 130 million Americans aboard is approaching smoother waters. The great English-speaking democracies remain, in spite of all, the most remarkable example the world has ever seen of the organisation of free men with free institutions, and we believe that they will yet find ways to prevent any enemy of human liberty from destroying the peace of the world.

1936 saw the most serious effort that has yet been made for the great democratic nations to get together to save the world from madness; 1937, we may hope, will see developments which will set trade free from its shackles and turn the wheels of industry again in democratic lands. Let us hope for a group of nations who will lower their tariff walls and ask all who will to join them. There is no nation that need be cut off from natural supplies; we believe that there is no nation on the earth that wishes to cut off any people from the riches of the earth. If nations that are under delusions will be good friends and neighbours they will find good friends and neighbours all round them.

At home it will be a great year to lift up our hearts. Our Throne is safe and sound. Never has a king been more popular than our good King George, a king like his father and therefore as we would have him—clean and frank and true, and loving duty more than all.

Let us look forward and let us keep on keeping on. The Old Country is growing young again, and there are more wonders in heaven and on earth than are dreamed of by all the pessimists.



THE EDITOR'S TABLE

John Carpenter House, London

above the hidden waters of the ancient River Fleet, the cradle of the Journalism of the world



Uncle Sam Has a Kind Heart

It is a kindly thing that the Post Office Department has done in America in authorising postmen in country districts to include feeding the famished birds as one of their duties.

When snow is deep on the ground bird-lovers may supply grain for the rural postman to scatter along the roads as he makes his rounds, and the cooperative undertaking has Uncle Sam's blessing.

A Noble Refusal

PROFIT is said to be king in the competitive world of business. We have just heard of an exception which we hope will break rather than prove the rule.

The great firm of optical manufacturers Bausch and Lomb of Rochester, New York, which shares with the Zeiss firm in Jena very nearly the whole of the world's business in fine optical instruments used for military purposes, has refused to take orders for military supplies to be sent abroad. This action has cut the prospective profits of the firm by two million dollars.

The No-Bill Table

WE have heard of a restaurant in London which has a special table at which the guests are presented with no bill.

They can have what they like, and may either pay nothing or what they think right.

The proprietor finds that most of his guests are afraid of giving too little, and that the "table d'honneur" pays him better than one of the ordinary tables.

Lord Haig's Picture

THAT is a good story Lady Haig has told of Lord Haig, showing how he refused to be a hero to himself.

In his bedroom hung a sketch which he had kept from 'the days when he served with Kitchener in the advance on Khartoum. It showed an officer carrying a soldier to safety under fire at the Battle of Atbara. It had been a gift to Haig from some of his fellow officers in the Sudan campaign.

Only after Lord Haig's death did his wife learn that this heroic officer was her husband.

A Prayer For Any Time

Jesus, give the weary
Calm and sweet repose;
With Thy tenderest blessing
May their eyelids close.

Grant to little children
Visions bright of Thee,
Guard the sailors tossing
On the angry sea.

Comfort every sufferer
Watching late in pain;
Those who plan some evil
From their sin restrain.

Sabine Baring-Gould

Flying in Fog

IN view of the air disaster at Croydon in which 12 passengers, the pilot, and the mechanic were killed, some of them probably burned to death, we recall the eight points of constructive criticism which we printed on August 31 last year. The second of these was:

FLYING CONDITIONS. Strict control of departure in relation to weather reports, with more linked centres of report on flying conditions. No flying in anticipated storms.

We do not know why flying in fog is tolerated by authority.

Tip-Cat

MEN in top-hats make people laugh nowadays. Comedians have taken them off.

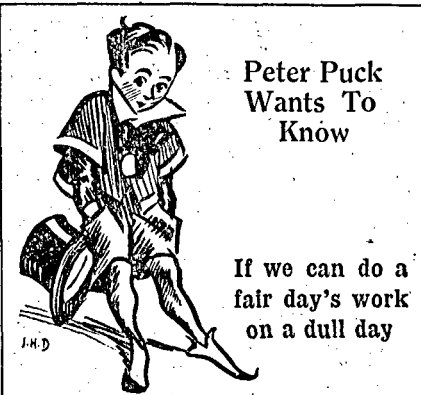
SOME hens are very artful. Hatch plots.

THE perfect typist hasn't much to say. But she raps out things.

THE Scot is a born humorist. But he doesn't like cheap jokes.

A GREAT many people suffer with rheumatism. The numbers are swelling.

BAKER boys lead a busy life. Haven't time for a loaf.



MEMBERS of a pantomime chorus must be all the same height. Yet all hope to rise.

MODERN books are often spineless, declares a critic. Yet they have strong backs.

MANY argue that peat is better than coal. And get hot over it.

A BOY of six is an expert at draughts. Usually it is just a question of getting in the way.

THE BROADCASTER

C N Calling the World

KELVINSIDE Boy Scouts are restoring a 13th-century castle at East Kilbride, Scotland.

THERE has been no fatal accident for ten years on the State railways of New South Wales.

TWO unknown friends have sent £250 and £1000 to the Star and Garter Home for disabled men.

JUST AN IDEA

If you could see all the beautiful deeds which are being done at this moment, and gather up all the lovely thoughts, you would have no difficulty in believing that, in spite of appearances, this is a fine, brave world, after all.

Love's Thermometer

If every life had its love thermometer there would be no room for Dictators in the world, and no talk of war.

As the Christmas season approaches every year in Czecho-Slovakia huge thermometers, drawn on white paper, appear in the classrooms of the Kromeriz Auxiliary School.

They are thermometers of love. Instead of degrees of temperature they register help brought in for a sister-school in a stricken area of Slovakia where unemployment is rife.

It was a chance coincidence that introduced the first of these thermometers five years ago. The subject was the Thermometer, and as the lesson was about to begin the mistress received a letter from a friend teaching at a school in Makov, telling of the distress among her pupils and begging for clothing and boots.

The next day one pupil brought two parcels of clothing.

"That is two degrees on our thermometer," said the mistress, registering a mark on the large sketch that was up on the board. The children were suddenly filled with zeal to make their thermometer register as much as they could. Other classrooms took up the idea, and they had races to see which thermometer would go highest. The result was that two huge packing-cases of useful garments were sent to the children's unseen friends.

The child who sent in this account to the Red Cross tells of the pleasure the gifts caused, and adds, "It would be difficult to say in which school there was most joy—whether at Makov where the boxes were opened, or at our school where we packed them up for despatch."

A Prayer For the New Year

Once more a new year lies before us, our Father.

As we go out among men to do our work, touching the hands and lives of our fellows, make us, we pray Thee, friends of all the world.

Save us from blighting the fresh flower of any heart by the flare of sudden anger or secret hate. May we not bruise the rightful self-respect of any by contempt or malice. Help us to cheer the suffering by our sympathy, to freshen the drooping by our hopefulness, and to strengthen in all the wholesome sense of worth and the joy of life.

Save us from the deadly poison of class-pride. Grant that we may look all men in the face with the eyes of a brother. If any one needs us, make us ready to yield our help ungrudgingly, unless higher duties claim us, and may we rejoice that we have it in us to be helpful to our fellow-men.

Better Peril Than Disgrace

Oh, rather than sink in the world's foul tide,

I would sink in the bottomless main;
For he who sinks in the world's foul tide,
In noisome depths for ever shall abide,
But he who sinks in the bottomless main

May hope to float to the surface again.

Ancient Chinese inscription

The Joy of Winter—People Who Welcome the Snow



MAUD IS 100

The Story Behind Tennyson's Famous Poem

It was a hundred years last month since Tennyson's poem Maud was begun—in a rather odd way.

Tennyson, then a young man, was friendly with Monckton Milnes, better known as Lord Houghton. One day in 1836 Milnes promised the Marquess of Northampton that Tennyson would write a poem for his annual; but when Tennyson heard of it he was indignant.

His attitude offended Lord Houghton, and each wrote severely to the other. What looked like being a serious quarrel was avoided by Tennyson apologising and Lord Houghton inviting him to his house at Fryston in Yorkshire.

"We shall have it all to ourselves," he wrote, "and you may smoke while I play the organ. Now, be a good boy and do as you are told."

Tennyson wrote to say he would be glad to visit his friend.

"I will either bring or send you something," he replied.

What he either took or sent was the fine lyric beginning "O that 'twere possible," afterwards expanded into the poem Maud.

A GARDEN OF NATIONAL FLOWERS

The authorities at La Planta in the Argentine have designed a Garden of Peace, in which every friendly nation is represented by a bed of its national flower.

Each flower bears the name of the country to which it belongs. Efforts are being made to secure the successful acclimatisation of the many diverse demands of the varied plants coming from countries whose climate is so different from the Argentine's.

A TURKISH GENTLEMAN CALLING

It is an encouraging fact that people who have the real interests of children at heart usually think much alike the world over.

In Moslem countries the society we call the Red Cross is known as the Red Crescent, and the badge is a red crescent on a white field.

Nevertheless, though the symbol of Christianity is banned in Turkey, the thoughts of a Turkish gentleman, speaking of a matter close to the hearts of us all, the education of children, express a great deal that any Christian might wish he could have said as well. We take the following from an article by M. Fahri Eifki Atay, writing in the first number of the Turkish Junior Red Crescent Magazine, and we pass it on because it is good to make ourselves familiar with the ideas of all nations.

It is at school that we can train the Turkish intelligence (says M. Atay). It is at school that we can prevent the Turkish heart from hardening.

We can save the Turkish child from being imprisoned in a narrow cell of

egoism solely by giving him from the earliest age an education in social service. If the greatest strength of a country is solidarity among its citizens, the first element of this solidarity is affection.

The heart furnishes and ennobles the mind. Practical experience humanises the individual. If the first step in the education of the mind is the awakening of thought, the first step in moral education is learning to think of others.

A child seeking only his own interest in all his activities becomes scornful of all moral and human values. His conscience is deprived of light. The individual who retires into a shell of selfishness cannot represent a great cause.

Do not fear to soften the heart of the child. Love and compassion are the inexhaustible sources of the greatest energy. He who neither loves nor pities loses not only human feeling but courage and energy. He who neither loves nor pities becomes a coward. Hardness of heart can make a man a tyrant; it can never make him a hero.

Honouring the War Horse

A German correspondent, Hildegard Muller, of Bismarckring 46, Ulm, writes to say how war horses are honoured in Germany. It is a pleasing story of the best side of our German cousins.

THE other Sunday (the correspondent says) we had a sort of meeting of all the war horses still active round our town. It was really touching to see them trotting along the main street in a long procession, led by their owners.

After being honoured in a speech, the horses were presented with the gift of a sack full of oats and a little enamel label with the word *Kriegskamerad* on it, so that everybody meeting one of

these animals on the road will know that it has been in the Great War. There are similar meetings all over Germany. We all think it our duty to look after these poor things which have been the best friends of our soldiers, and I am quite sure that English people especially feel the same way about our dumb friends who had to go through so many hardships in wartime; they really deserve good treatment. The organisation for the protection of animals under the new German Government is going to enable all the owners of war horses, who are sometimes only poor peasants, to feed and keep these old war comrades.

GOOD NEWS FROM THE RUBBER PEOPLE

Better Times For Horses

If Lemuel Gulliver's kingdom of the horses still survives, someone should post to it a pamphlet issued by the Rubber Growers' Association telling what has now been done for the stables and harness of their race in domesticity.

Stable floors are paved with blocks of rubber, and heel-posts are padded with it to prevent kicking horses from injuring themselves, and the improvement secured is quiet, comfort, and safety.

Best of all seem the pneumatic tubes fitted inside the collars of draft horses to act as shock-absorbers when heavy loads are drawn, and the pads placed under the saddles of riding horses to prevent soreness of the back from the chafing of the leather.

And it is good to hear at last that rubber pads and shoes are made which prevent the horses from tripping up on slippery roads.

SWITZERLAND'S FOURTH LANGUAGE

In Switzerland German is spoken by nearly 3,000,000, French by 800,000, and Italian by a quarter of a million.

Now Romansch is making its claim to be an official language. It is spoken in the Engadine by 46,000, and after a chequered history in the last couple of centuries is more than holding its own against the encroachments of its comparatively big neighbours.

In the Swiss Parliament the deputies speak their own language, and there has been no difficulty hitherto because they all understand each other. Probably they will not all understand Romansch.

The ordinary Romansch salutation is an inspiring one. It is, *Dieu s'allegria*, meaning God make you happy.

January 2, 1937

Greetings in the Farmyard



THIS WAS A MAN

Was He Sanders of the River?

Nigerian chiefs have built a tower in memory of Sir Robert Lister Bower, the daring Yorkshireman who was the first British Resident in the country.

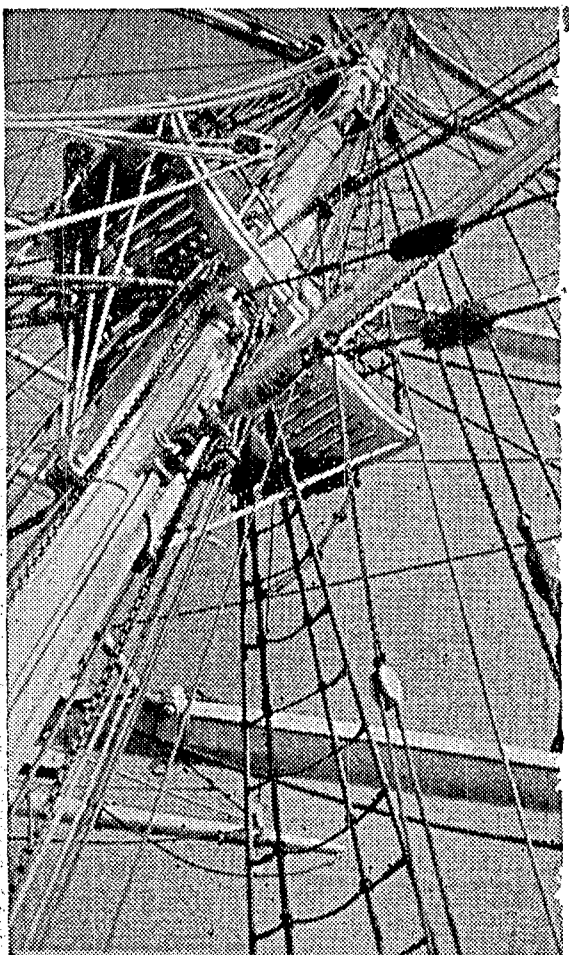
His tower, over 60 feet high, stands on the heights of Ibadan, and looks down proudly on the country for which Sir Robert did so much between 1893 and 1897. Its inscription says he won the esteem of the Yorubas, and firmly established the loyalty of the people to the Imperial Crown.

It ends with the simple tribute: This was a man.

Utterly fearless, Sir Robert went out to Nigeria in the days when slave trading and fetish worship were universal. Standing six feet in his socks, he was audacious but wary, dealing with rebellious native chiefs with a coolness and promptness which won their admiration and allegiance. Among his many adventures perhaps the most thrilling happened one day when an excited mob of hundreds of natives were ready to defend their chief. Accompanied by only nine followers this calm Yorkshireman strolled through their ranks, and with all eyes on him arrested the chief. Not a spear was thrown.

Accidentally wounded by an explosion, Sir Robert was compelled to come home before his great work of establishing law and order was complete. It has often been thought that he was the original of Edgar Wallace's story Sanders of the River.

The Windjammer



Repairing the rigging of the Josephine

THE GREAT BRITISH ARMY OF WORKERS

Now that the agricultural labourers are insured against unemployment we are able to give a more complete picture of British work.

On July 8, 1936, there were as many as 14,905,000 men, women, and young people insured in the United Kingdom.

This does not cover all employments, for not all are compulsorily insured, the biggest omitted category being the domestic servants.

Very unequally the chief industries have fared since 1936. Miners fell by 25 per cent, factory workers increased by eight per cent, while builders' men increased by 63 per cent and miscellaneous services by 70 per cent.

So with geographical gains and losses, great variations appear. From 1923 to 1936 Wales lost 7100 workers while London gained 83,800. The North-West gained 5200 while the Midlands gained 54,300.

For every nine men workers there are three women, the men being over nine millions and the women over three. In addition there are about a million boys and girls at work.

COMPETITION RESULT

The two ten-shilling prizes in C.N. Competition Number 15, Fill in the Missing Faces, have been awarded to Margaret Tournour, 126 Purley Downs Road, Sanderstead, Surrey; and Michael Washbrooke, Newlands, 1 Eton Grove, Wollaton Park, Nottingham.

The twelve Multiscopes have been awarded to the following:

Hilda M. Burton, Burnley; John Boston, Belfast; Josephine Edwards, Holland-on-Sea; Barry Eeles, Ponders End; Helen Hughes, Biggar, Lanarkshire; Reginald Langford, Holloway; Kenneth Leeson, Mansfield; Michael J. Monson, Wokingham; Suzanne Pugh, Seal, Kent; Elsie M. Roger, Cupar; Ruth Turner, Duxbury, Lancashire; K. P. Whitehorn, London, S.E. 13.

Age was taken into account when judging. Watch the C.N. for more competitions.

ALADDIN'S LAMP AT KENSINGTON

ANY boy would find it hard to tear himself away from the Electric Illumination Exhibition at the Science Museum. So many buttons are there to press.

Press one, and a model of St Paul's Cathedral is floodlit. Press another, and it is still floodlit but does not look quite right: it is too garish. Press a third or a fourth, and it appears floodlit in various ways, so that light and shade show up its beauties.

A Feast of Button-Pressing

Having once begun, the youthful visitor can go on to a perfect Christmas feast of button-pressing, for the fascinating thing about this radiant exhibition is that everything works by hand. There is one compartment, with five buttons at least, which displays a bouquet of flowers, a picture on the wall, and a compartment of variously-coloured ribbons. Each button throws a different coloured light on the room, red, blue, green, white light, and yellow light, and as the light falls so the objects in the room change colour.

This is one of the instructional shop windows. There are others to show how differently a room or the things in it appear when lit from one side or another, from below or from above, or by light reflected from hidden sources. Others tell, still through the pressed button, the effect on the eyes of the naked light, the tempered light, the light too weak or the light too strong. The tale is continued by models showing how machines and shop counters and workshops are well or ill lighted; and this series is completed by a desk lamp above an open page, which by experimental button-pressing shows any reader what sort of angle of the lamp, and what intensity of illumination, suits his eyes best.

Satisfied about that, he can proceed to two rooms side by side, each with a

switchboard of buttons. Further pressing here reveals every kind of way of lighting a room, from the fireplace to the walls and ceiling, as well as every kind of lamp that electricity supplies for the purpose.

But the tour has other colourful surprises, for, continuing it, the visitor comes to the long array of luminous discharge tubes, of which the best known is the neon tube, that paints all our streets red. Their scientific name is the cold cathode tube, and their scientific foundation is a tube filled very thinly with gas, through which an electric discharge passes. The neon tube is red. There are hot cathode lamps, which the ever-present demonstrator will explain.

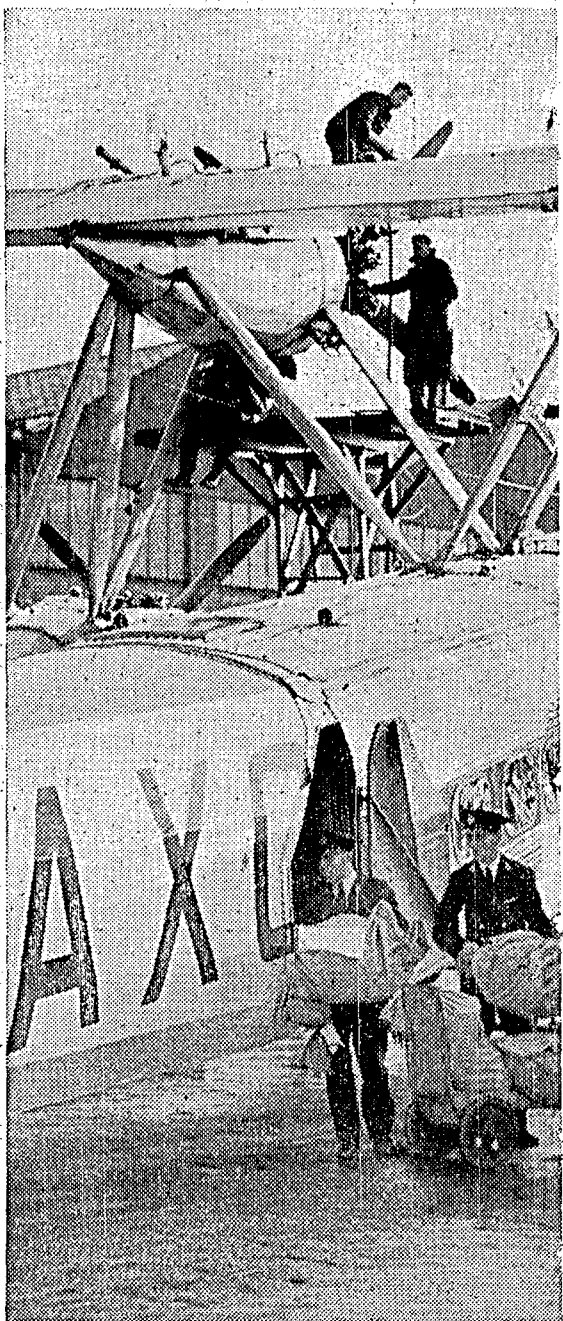
Nothing about electric lighting need remain unknown after visiting this exhibition of it, because every kind of electric lamp is here, explained, demonstrated, and lighted up on demand.

Lamps of the Universe

So that its perfections may be properly appreciated there is a small historic exhibit showing the sort of lighting the great-great-grandparents of the boys and girls of today had to put up with, when they took flint and tinder to strike a light, and read or worked by tallow candles unless they could afford wax.

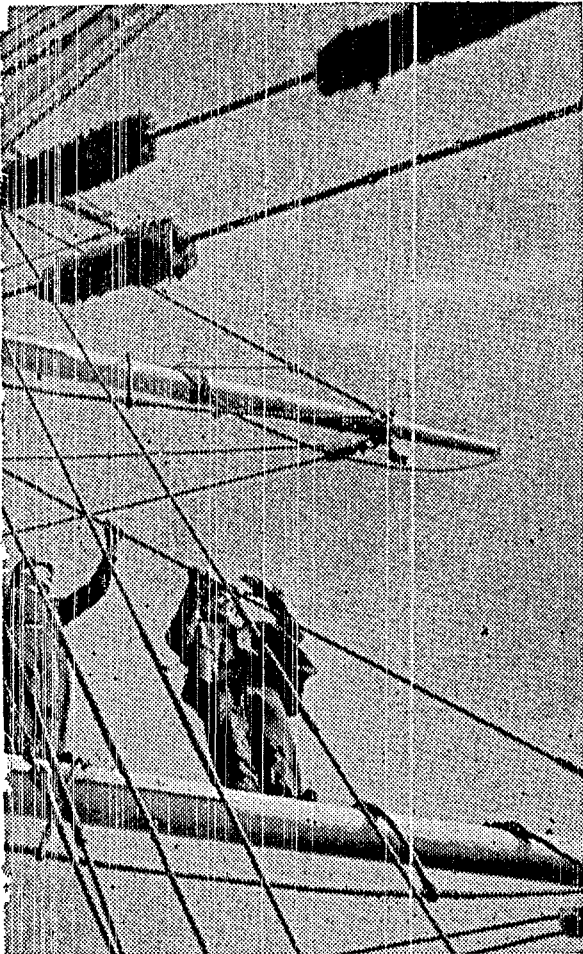
Finally there is, at the entrance to the show, the mirror of Lord Rosse's reflecting telescope, the ancestor of the 100-inch mirror of the American astronomers, which catches light from stars which set out on its journey long before man with his ideas of lighting was born on the earth.

These distant stars are the great electric lamps of the Universe blazing away through Time untold with billions of candle-power.

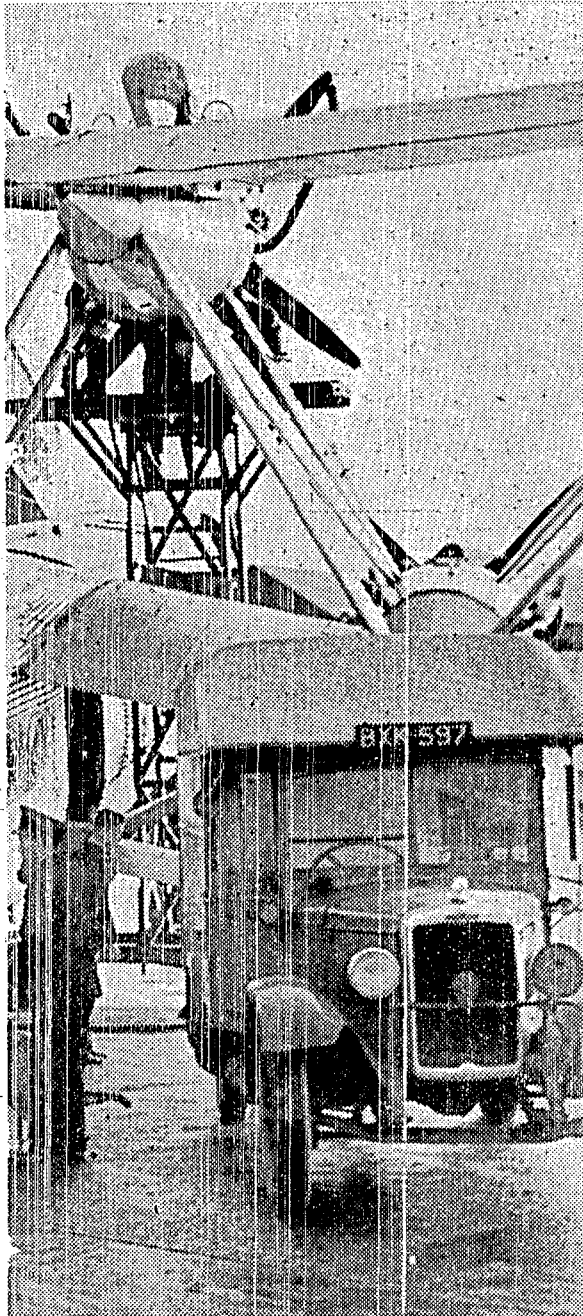


Loading the mails and preparing the engines

and the Air-Liner



in a dry dock at Brooklyn, New York



before the departure of an air-liner from Croydon

There is Hope For the Nation Yet

THE GOSPEL FOR THE ELDERLY IDLE

A BEGINNING is to be made with a new idea of aiding the elderly unemployed.

Life has always been difficult in industry, let us remember, for working-men over fifty years, and the trade slump of 1931 reduced many of them to great distress.

A very small start is to be made by way of experiment; 250 family men over 50, with their dependents, are to be set up in life anew. They are to be brought from the distressed districts of the North and transferred to land in the Midlands and South of England, where the younger members of their families can find work. Each family is to be established in a cottage homestead, consisting of a detached cottage with half an acre of cultivable land. The homesteads will be in groups. The rent will be about 10s 6d a week. The capital cost of the trial scheme will be about £500 for each homestead, or say £125,000 in all; the Special Areas Fund will meet the cost. Until the new settlers find employment they will receive allowances.

The family men thus re-established in life will be expected to cultivate their holdings. They will be practically trained by the Land Settlement Association, which will take charge of the scheme. It is to be hoped that some at least of the young ones will find employment on the land, the great need of our country.

The Great Reversal

This new homestead plan is one symptom of a remarkable change. It is well for us all to realise the passing of old factors and the need to be adaptable. After five generations we are faced with a reversal of the process that built up the Industrial North and the wealth of England. As recently as 1914, just before the Great War broke out, no one would listen to the suggestion that a nation whose wealth was built mainly on coal had need to prepare for a time when the old methods would no longer serve.

The Great War hastened a process of certain change. Coal, although still remaining of importance, was no longer to rule industry. In the old days, because it was so heavy and bulky and

costly to move, it was best used near the mines, and so a coal map became an industry map.

Coal was a magnet that drew to itself trades and people.

The poorly-paid agricultural labourers of the 18th century flocked to the mines and factories to draw a small wage that seemed big to them, and the slums arose to house them and to destroy their health.

Now, in so far as coal power is used to make goods, it is largely used as electricity. The great cables, in distributing current, distribute people afresh, pulling down old towns and building up new ones. Oil increasingly supplants coal on sea and land. The time will come when oil will pass in its turn, and other new forms of power will arise. Nothing is more certain than that the Coal Age is passing before our eyes, although its end is not yet.

At sea the defeat of coal is even more remarkable than on land, and in the air coal has no place. The decline of the British mercantile marine is mainly due

to the loss of coal power. Coal cargoes built it up, and the shipowners can find no compensation for their loss.

Therefore such a sign of the times as the homestead experiment should make us think furiously, as the French say.

The lesson to be learned is that our people must fit themselves for the new age. They must cultivate their faculties to the highest. No longer is it possible to earn imports by exports of coal, calico, and pig-iron. Our trade must be increasingly concerned with finer goods. Such trades are not for the young alone—a thing to note in considering the unemployment problem.

And beyond that is the question of health and happiness. The new age, full of change, offers the future something much better than those emblems of crude trades, the Factory Chimney and the Crowded Town. It offers health and beauty. The nation need not regret the loss or decline of old trades if it prepares the rising generation to face the Scientific Age which is upon us.

Save Your Silver Paper

WHAT do hospitals do with the silver paper you send them?

Up and down the land people are saving silver paper and sending it to the hospitals, but who knows what happens to it? Years ago much of it was sold to Germany for about £12 a ton, but now most of it is sent to Yorkshire, a ton fetching as much as £30.

The silver-paper factory is at Guiseley, near Leeds, and is believed to be the only one of its kind in England. Its supplies of silver paper, amounting to nearly 12 tons a week, come from about 750 hospitals at home and abroad.

The industry began in a modest way. Mr John E. Moore happened one day, to hear someone say quite casually that it was a pity no one in England could

find a use for silver paper. The chance remark set him thinking, and after devoting three years to research work he set up in the silver-paper business. He had no capital, and only a boy to help him. Now he has three factories, at Guiseley and employs about 40 people.

The silver paper is converted into a new alloy which Mr Moore claims is as light as aluminium and as strong as steel. His aluminium foil is used for welding tramlines, fixing the colour of silk stockings, and in the manufacture of motor tyres. In the last three years the firm has bought silver paper valued at over half a million pounds.

Save your silver paper. It helps the hospitals, and it keeps the wheels of industry turning.

Goat That Goes To Sea



A Ramsgate fisherman and his pet, which often accompanies him on fishing expeditions

YOUR TREASURES

The Little Books of Our Great Possessions

England; East Anglia and Midlands. By the Rt. Hon. Ormsby Gore. Stationery Office. 1s.

This excellent volume, begun by Mr Ormsby Gore when he was First Commissioner of Works, completes the survey of the Ancient Monuments under the ownership or guardianship of the State. Mr Ormsby Gore has expressed a hope that volumes dealing with Wales and Scotland will follow, and we can only hope he will find time to write them.

The chapter on the Stone Age is specially interesting, if only for the detailed description of Grime's Graves, which the author calls the Sheffield of the Stone Age, situated as it was in an area then densely populated and linked by the old Icknield Way, past Royston, Dunstable, Princes Risborough, and Uffington, with Avebury, the other populous centre of our land 4000 years ago.

London comes into this book with the Tower and its strength, and the Chapter House of Westminster Abbey with its exquisite grace.

Among the more recent acquisitions of the Office of Works are Kirby Hall in Northants and Houghton House near Bedford. Houghton House was built for Sir Philip Sidney's sister, Mary Countess of Pembroke, and was the House Beautiful in Pilgrim's Progress.

Mr Ormsby Gore reminds us that the Eleanor Cross at Geddington is under the care of the Office of Works, and the photograph he gives of it is perhaps the most charming of the twenty in the book.

A NEW ZOO BOOK WATCHING NATURE AT WORK

How the Lion Lost Its Spots IN A THOUSAND MILLION YEARS

At the Zoo. By Julian Huxley. Hodder and Stoughton. 3s 6d.

This is an ideal book to read just before a visit to the Zoo, for in its pages the author tells of the most interesting things to be seen and explains their relationship to the human family.

Boys and girls will enjoy this book and its 16 fascinating pictures. Written in simple, direct language by the Secretary of the London Zoological Society, the chapters deal with the food eaten by the animals, the colours they display, their contribution to the stream of Life, and where they have come from.

Changing a Uniform

Though we cannot actually see evolution taking place at the Zoo, we can see many examples of the way in which it works. As an example, Mr Huxley calls attention to the spots on young lions, suggesting that they are spotted because their ancestors were forest dwellers, and only evolved a plain tawny coat when they took to the open bush and plains and needed a better uniform for invisibility.

Attention is called to the fact that the native country of each animal is always stated below its name on the labels at the Zoo. There is often the romance of geography or even geology to be learned from this practice. For example, Ireland will never be found under the name of a snake or the common hare, though it might appear under the name of the mountain hare.

The author explains that Ireland was separated from the Continent before England was. Neither snake nor common hare can exist close to an ice-cap, and when they followed the retreating ice and gradually spread over this country St George's Channel had already formed so that they could not pass. But the mountain hare, being a more northern form and nearer the scene, was able to get in, and now lives even on low ground in Ireland, whereas in Britain the competition of the common hare keeps it up in the hills.

How To Become an Optimist

The chief value of the book, however, is in the clear idea it gives of evolutionary progress, in which the creatures at the Zoo become illustrations of the tremendous drama of Life's myriad changes and slow upward progress over a period estimated by Mr Huxley at a thousand million years. If the blind forces of past evolution could effect so much, he concludes, the conscious powers of man should enable him to achieve even more startling progress in the thousands of millions of years still before him on this planet.

A visit to the Zoo, therefore, should make us all optimists, and we owe Mr Huxley warm thanks for helping us in this direction.

THE MAGIC EYE OF ST BART'S

St Bartholomew's Hospital has the biggest and most powerful X-ray plant in the world.

The X-ray tube, 30 feet long and weighing ten tons, is housed in three rooms, the middle one like a lift so that the floor may rise and fall in order to adjust the patient to the eye of this monster which helps instead of hurting people. The apparatus will work up to 1,200,000 volts, though the maximum voltage required is a million.

It is hoped that this instrument will be a powerful weapon in the hands of doctors who are making war on cancer.

STEPHEN GRELLET PASSING BY

I expect to pass through this world but once. Any good thing, therefore, that I can do, or any kindness I can show to any human being, let me do it now. Let me not defer it nor neglect it, for I shall not pass this way again.

PROBABLY no quotation is more familiar, yet who knows who said it first? It has been attributed to many writers, but it seems almost certain that it comes from a Quaker of whom the world has heard too little.

He was Stephen Grellet, an American of French birth, who passed away in 1855 after living a beautiful and useful life. We have lately come upon this story of him, and we give it here because it shows that he practised what he preached.

One day there came to him the conviction that he must speak to the men in a distant lumber camp. A voice said, Preach; and Stephen obeyed it and preached.

It was a long ride through the forests. Day after day he followed the path, always sure in his own mind that he was being divinely guided to the place where God had a piece of work for him to do. He knew he was near the clearing before he came in sight of it, for he had seen it all in vision.

Not a Man Was in Sight

Hurrying forward, eager to give his message, he expected to hear the sound of axes and saws and to see smoke curling up against the tall trees. But there were no sounds to disturb the peace, and there was no smoke. The clearing was deserted. One or two huts where the lumberjacks had slept weeks or months before were still there, but not a man was in sight. The long shed where all had dined stood as he had pictured it, but flowers and weeds were growing up between the wooden tables and benches. He had come far to preach, and there was no one to listen.

Had he come to the wrong camp? He could not believe it. Had the voice been mocking him? It had never done so before. Had he misunderstood? There, in the clearing, he waited patiently to know what he should do, and in the stillness of the woods came the same voice with the same message. It said, Preach.

That was all Stephen Grellet needed. He strode across the clearing, tied his horse to a tree; went into the dining-shed, and preached as if 200 men were listening.

At first the thought kept coming to him that he was making a donkey of

himself. But he had disciplined himself by years of obedience, and bit by bit he forgot the empty benches, preaching as if to a great congregation. He told those wooden benches that wrong doing and wrong thinking build up a wall between man and God, and that only repentance can break down the wall and bring peace and joy.

When he had finished he rode home through the woods. He had apparently preached to nobody, but he had obeyed the voice.

Long years after, when his queer experience was almost forgotten, Stephen came to London on business. People had little time to notice the old Quaker, graceful, courtly figure that he was, his gentle, placid face shaded by a broad-brimmed hat.

A Dramatic Meeting

He was crossing London Bridge when someone in the crowd seized him roughly by the shoulders, exclaiming: "Ho! There you are! I've found you at last, have I?"

"Friend," said Stephen, surprised at this unexpected challenge, "I think thou art mistaken."

"Mistaken?" exclaimed the other, a big man with a bronzed face and powerful hands. "Mistaken, when I've sought you in two continents? No, sir, I am not mistaken. I know the very coat, sir, and the hat. I had never heard a man preach with his hat on before."

"Hast thou heard me preach, friend?" asked Stephen.

"Yes," said the other, looking steadily at him. "I heard you preach when you thought you were preaching to nobody. You preached at our old clearing in the woods. I was foreman of the gang that had moved on, and I went back to the old camp for something I'd left behind, and there you were, preaching to empty benches. I thought you were mad at first; then I found you were sane and sincere. I listened because I could not help it. I was miserable for weeks, and then I found a Bible. The men jeered, but I kept on reading it, and somehow I seemed to find my way to the light. I gave the men no peace till they found it too. One sunset we all got down on our knees and prayed that we might live more finely. Three of the men are missionaries now, and since then I've always wanted to meet you and tell you that you never preached more powerfully than on that day when you thought you were preaching to nobody."

A Surprising Thing, Snow

ONE of the joys of a visit to the Zoo or to Whipsnade in winter is to see the astonishment of animals on their first acquaintance with snow and ice.

We have learned that, given plenty of nourishing food, with warm houses, and full liberty to play about in a big enclosure, animals from tropical lands do astonishingly well in unfamiliar conditions.

We have seen birds from warm climates alight from full flight on a lake pond covered with ice, skid right across it, and afterwards repeat the feat as if in sheer enjoyment, just as the sheep-killing parrots of New Zealand delight to slide down the corrugated iron roofs covering the sheds of up-country farmers.

A year or two ago the young tigers at Whipsnade caused great fun by their reactions to their first frozen pond. They sought at first to drink, then they patted and struck the ice with their paws, and finally, with suspicious

footsteps, they walked delicately on the mysterious surface unafraid, but not more astonished than the little girl who, when first brought from India, collected a handful of snowflakes to send to her mother in the East, who could never have seen such wonderful gifts from the skies.

The latest strangers to make a first acquaintance with snow are the three young chimpanzees at Whipsnade. First they smelt it, then they tasted it; then they sat down in it to ponder—but soon sprang up again!

TWO IMPORTANT NOTES

Every year the Sheffield Royal Hospital collects about £500 from the boxes exhibited in the wards and on the walls.

Last year those who open these boxes had two happy surprises, for on two occasions they found among the copper and silver a £50 note.

GOOD BOYS MAKE GOOD CITIZENS The Barnardo Boys in Australia

When Australia catches her immigrants young she finds reason to like them.

To the splendid success of the Fairbridge boys and girls in West Australia must be added the records of the Barnardo boys as known to New South Wales. A report from Sydney says that nearly nine out of ten Barnardo boys settled on Australian farms are a success. Seven out of ten do very well indeed, and only one in twenty fails to do something.

New South Wales has therefore a high opinion of their intelligence, and has found the best way of contributing to it. It makes the boys save. Five shillings a week is taken from their wages and is banked for them till they come of age. Then it is paid back to them, with interest, to give them a start in life when manhood begins.

Last year £3300 was paid back, and £44,000 has been paid back in all. Thrift added to intelligence will take a boy a long way.

THE APPRENTICE IN THE OLD OLD DAYS

Mr Tom Coombs, the Lord Mayor of Leeds, treasures a quaint document signed by his grandfather in 1822.

It is an indenture binding Isaac Coombs to a Somerset ironfounder, the wording of the agreement reading rather oddly today:

The apprentice agrees that he his master faithfully shall serve, his secrets keep, his lawful commands everywhere gladly do. He shall do no damage to his master, nor see to be done of others; but to his power shall let or forthwith give warning to his master. He shall not play at cards, dice, tables, or any other unlawful games whereby his master may have any loss. He shall not haunt taverns or playhouses, nor absent himself day or night from his master's service.

In consideration of the apprentice's faithful service he was to receive two shillings a week for the first year, and an annual rise of a shilling a week for seven years.

A YORKSHIREMAN ON A WHEEL

Walter Greaves, a one-armed Bradford cyclist, was riding in Hyde Park the other day.

When he dismounted he had beaten the world's cycling record of 43,996 miles by cycling 43,997. But he was not stopping there; he was hoping to add another 2000 miles to his record before 1937 came in.

Vegetarians may well be proud of Walter Greaves, who is not only a non-smoker and a teetotaler but has lived without meat for ten years, and kept so strong and fit that he has given the world a new record to beat. His finest performance was a cycle journey of 375 miles without a break, followed the next day by 180 miles in the saddle.

123

49,789 persons from special areas were found work between January and October.

1,000,000 allotments are in use in England and Wales.

7,897,518 wireless licences were in force at the end of November.

11,000,000 miles of telephone wires are run underground.

£100,000,000 has been paid out in accident claims in the last five years.

£2000,000,000 was spent on armaments last year.

GREEN-EATERS AND Seaside School · Floods · Kent Silk A GIANT SLING

MILK FANS

On the Right Road A FINE GOAL TO BE MARCHING FOR

Twenty-five thousand schoolchildren have had their teeth examined at the Hygiene Institute in Oslo, Norway.

Only 170 of them were marked Perfect; 24,830 needed to go to the dentist.

The wolves do much better than that. Where is civilisation going wrong that Nature takes such a toll of our children?

Dr Carl Schiotz, Professor of Hygiene, decided to carry the investigation farther and to try to answer this question.

Do children from poor homes suffer more with their teeth than the others? he asked. The records were carefully examined, and the answer was Yes.

Seeking the Reason

"Then let us examine the teeth of the poorest children of all," said the professor, and the children from the public homes of the city were called up. Most of them had excellent teeth!

"Is it because they lead well-regulated lives and never forget to brush them?" the professor inquired, remembering the old but doubtful saying that a clean tooth never decays. No, that was not the answer. From some of the homes tooth-brushes were conspicuously absent.

"Probably it is because they don't ruin their teeth sucking lollipops, and are not allowed to help themselves freely to sugar," the professor thought. But no. Although these poorest of children did not spoil their appetites by eating sweets before meals, many of them were not stinted of sugar after meals.

Then what advantage did the children in these five institutions enjoy that ordinary children in ordinary homes did not have? Why were their teeth so much more nearly as Nature meant them to be?

C.N. readers who have followed the wonderful work of the great English investigator of this question, Mrs Mellanby, will know that the answer is *The Right Food*. As aids to this important factor Dr Schiotz lists two others: long hours every day in the open air, and plenty of sleep, ensured by going early to bed.

Obey Nature's Laws

The food in the five homes varied. Some of the homes gave their children cod-liver oil, and some did not; but the things that they all gave their children were plenty of milk, wholemeal bread, plenty of green and root vegetables, and fresh fruit every day.

This proves once again that the Green-Eaters are right. If we live according to Nature's laws and enjoy the good things she grows for us in the fields, in preference to the concoctions we see in the pastrycook's window, she rewards us accordingly.

The Industrial Revolution was the death-knell of England's good teeth. It will take us a generation or two to regain the lost ground. The Milk Fans and the Green-Eaters know how to do it, and the investigations of the Norwegian Hygiene Institute give further proof that these crusaders for better national health are on the right road.

LESS THAN A THREEPENNY-BIT

We sometimes hear people grumble about the threepenny-bit, but what would they say, we wonder, if they had to handle a silver coin so small that it is much less than the head of a tin-tack?

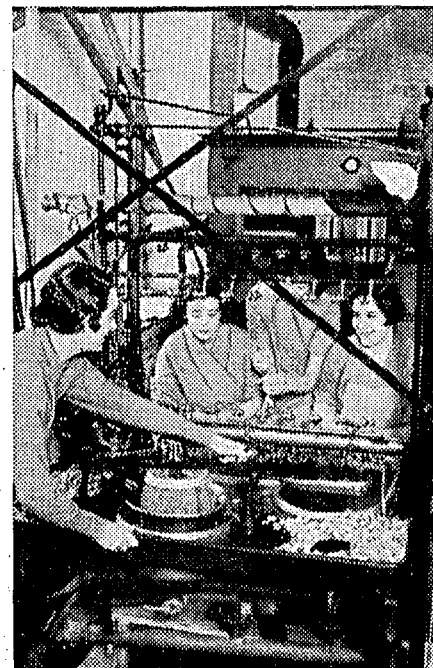
A coin of this description, believed to be the smallest in the world, has been discovered near Antioch by Sir Leonard Woolley's expedition. It was found in a silver purse ten feet under ground, and is believed to have been used 500 years before Christ.



Winter by the Sea—Happy girls of Fairfield House, a school run by the Save the Children Fund at St Peter's near Broadstairs



Kent Silk—Girls gathering cocoons and Lady Hart-Dyke examining a reeling machine at the Lullingstone Park farm, where silk is being produced for the Queen's Coronation robes



Flooded Fields—Taking food for marooned horses and cattle at Cleve near Cheltenham

Whirling 3600 Times a Second

MEASURING MOLECULES

The C.N. has been to see one of the wonders of the Lister Institute, where a new machine has been set up which is like no other in England.

The only other one like it is in Sweden, under the charge of Professor Svedberg, who has worked miracles with it in finding the size of bacteria and invisible germs of life, and of smaller particles still. He has even made it measure molecules.

It works like a mighty sling. When a slinger casts a stone he throws the weight outwards so that it defies the force of gravity. He employs centrifugal force; and that is the principle of the Lister Institute machine, which is called a centrifuge.

The Filter Passers

This wonderful machine can whirl an object round 3600 times a second, and the outward flying force resulting from that rapid movement is 300,000 times the pull of gravity.

Any object whirled as fast as that might be expected to undergo considerable alterations in its make up. The objects whirled round in the bacteriological laboratory are liquids encased in small steel cylinders. Some of these liquids contain bacteria, some invisible causes of disease, which used to be named filter passers because they went through the finest porcelain filters laboratories employ to strain out germs. The more scientific name for these living germs is virus. They are not the smallest particles known by any means, but they are generally far too small to be seen in the most powerful microscope.

The Sediment in the Tube

Now when the slinging ultra centrifuge gets to work it quickly flings down all the bacteria to the bottom of the tube containing them. The machine need not go at its utmost speed, and half an hour will do the business of the smallest bacteria. They come down to the bottom of the tube in a sediment, and by calculating the speed of the machine and the time taken their size is made known.

The viruses take longer, but a few hours' work at the higher speeds of the giant sling will reduce them to sediments, and their size is also made known. Last of all there are the particles in the liquids of the animal body, such as the blood. These are the size of molecules, or groups of molecules, of the substance named protein, which is found in all living things.

The sling casts these all down in sediments, one after the other, in order of their size as they occur in the liquid being examined. It does not matter whether they are visible as particles or not. Down they must come, and the watchers of the machine can calculate their size to the millionth of an inch. The millionth of an inch is the figure the biologist employs when calculating sizes.

A Photographic Record

Though bacteria differ in size one from another as much as a guinea-pig from an elephant, the size of a medium-sized one, like that causing pneumonia, is 1000-millionths of an inch. The virus when invisible is 130-millionths, but it may be as small as 25-millionths. But the protein particles which the sling compels to come down to have their measure taken may be as small as two or three millionths.

In the steel cylinder containing the liquids are end windows of crystalline quartz. A beam of light passes through the cylinder from end to end, and because the cylinder is carried round so fast it appears stationary to the eye of the watcher or of the camera, which takes photographs of what is going on every ten minutes.

WHY NOT POPULARISE THE SUBWAY?

People Do Not Love a Gloomy Hole

With the motor age the rivalry between the roadway and the pavement has become a battle.

Cars want wider roadways for getting along faster. Walkers want wider pavements in order to get out of the way in comfort. The houses in streets cannot be shifted back to please both without vast expense. The remedy suggested is the arcade.

But the arcade, though so pleasant in sunlit towns like Bologna in Italy, and though so pretty to look at, as in Chester, is a gloomy place in London, and would be in most of our big towns.

London's Arcades

There is a well known street arcade in Piccadilly near the Ritz, but everybody hurries through it to catch the bus. Nobody lingers, except at the picture shop. Nor are there any loiterers in the venerable arcade at the back of His Majesty's Theatre, or the two at Knightsbridge, or those on the south side of Piccadilly. Others could be named, but the only one which keeps any of its old glamour is the Burlington Arcade. It is brightly lighted.

Light is the secret of the successful arcade. Without it none can prosper. There is never too much light in London, which in some years proves the cloudiest place in the British Empire, and Londoners, though hardened to it, shrink from entering a tunnel.

That is what keeps people from using the subways as much as they should. There are two reasons for avoiding them, though they so clearly point to the best way of avoiding being run over. They save the nerves, but they do not save the exertion of going down and up steps, with loss of time, and the loss of an elderly person's breath.

An Easy Descent Needed

But their chief defect is that they are gloomy. Who wants to explore their dark recesses? Some are worse than others. There is a dark subway from South Kensington Station which was meant to lead toward the Albert Hall but ends at Imperial Institute Road, and which is so dank and drear that everybody shrinks from it except the boys who use it for roller-skating and for raising the echoes with terrifying yells.

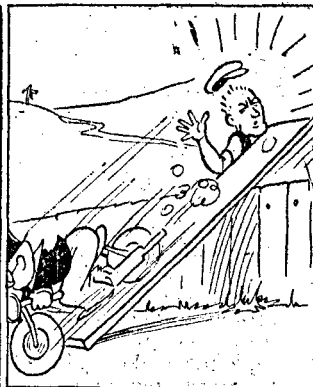
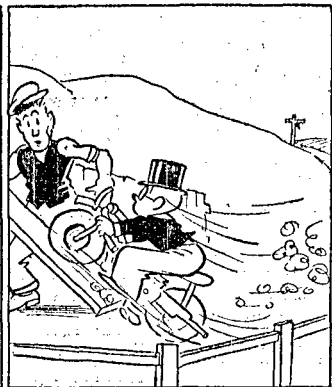
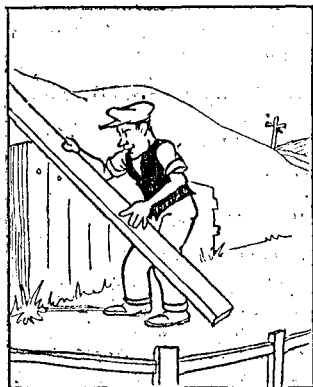
What is wanted for the subway is something to invite the passer-by. Instead of steps there should be an incline to offer an easy descent to the realms below. But, still better, every subway should have a beckoning bright glow of light. Electric light is cheap enough. If the subway were flood-lit and turned into a picture-poster gallery we should soon learn to follow the gleam.

TIGER

A tiger swam the mile-wide Straits of Johore from the mainland to Singapore Island, and has caused much alarm.

Fortunately such visitors are rare, although leopards and tigers have occasionally swum the straits.

A Few Words From Theophilus



ROOM FOR PEOPLE

Is it Worth Quarrelling About?

A Colonial Week is to be held in Germany early in the New Year, when Germany's claim to colonies is again to be pressed upon the notice of the world.

A few weeks since Dr Schacht, in a speech at Frankfurt, said that if the world could not find room for Germans the result must be an explosion.

The C.N. does not believe that the ownership of colonies is of great importance, for Germany can obtain whatever she wants from Canada or South Africa or Australia in the same way as England obtains it.

But is it worth quarrelling about, this matter of a fraction of the globe? Let us quote from that fine new book *The Testament of Man* what a British soldier, General Philip Howell of the 4th Hussars, wrote from the war front:

It is vile that all my time should be devoted to killing Germans whom I don't in the least want to kill. If all Germany could be united in one man, and he and I could be shut up together just to talk things out, we could settle the war, I feel, in less than one hour.

The ideal war would include long and frequent armistices during which both sides could walk across the trenches and discuss their respective points of view. We are really only fighting just because we are all so ignorant and stupid. And if diplomats were really clever such a thing as war could never be.

The clever diplomats must not allow the world to go to war about the question of room for human beings.

BOOTHAM BOYS AND THEIR ADVENTURES

For nearly eight years Bootham School at York has awarded travel scholarships to some of its pupils, and the headmaster has been reviewing the adventures of some of the winners.

One has crossed the Arctic Circle four times, driven a mineral train in Sweden, and made his way as far as the White Sea. Another spent 32 days cycling 1350 miles in France at a trifling cost. The people he met and the sights he came upon gave him a wonderful knowledge of a country beyond his own.

Evidently the travel scholars of Bootham have found a challenge in Kipling's query: What do they know of England who only England know?

SHEFFIELD FOR STEEL

Sheffield has what is believed to be a unique station sign.

Unveiled by the Lord Mayor, it is of stainless steel, and has not only the name of the city but also its coat-of-arms and panels showing the chief industries. It reads: *Sheffield, world-famed for steel, tools, cutlery, silverware.*

The sign is an example of the way in which the L.N.E.R. is linking its stations with the industries of the cities it serves.

With its steel mast in memory of men who died in the war, and its steel sign reminding us of the thousands who are working for peace, Sheffield may well be proud of its stainless steel.

GOING DOWNHILL

British Ships and Japanese

Japan has made such advance on the seas that qualified observers assert that her mercantile marine has become second to ours.

It was in the war that Japan took advantage of the withdrawal of British ships from certain seas to fill the gaps with her own vessels. Since then the service has been liberally subsidised, and Japan has now 4,200,000 tons of shipping.

Mr Alexander Shaw of the P and O Line points out that the new Shipping Routes Control Act adopted by the Japanese Parliament will increase the fleet by half, and Japan will come to possess a mercantile marine four times larger than is required for her own sea-borne trade. The surplus must work on routes hitherto covered by other countries, chiefly Britain.

Mr Shaw declares that British shipping is going downhill.

DINNER FOR TWO

By The Pilgrim

We know a particular lady who loves doing good quietly.

The life and soul of a weekly meeting for mothers, she is always trying to be an angel of mercy. She tells us it is sometimes a little disheartening to see how shamelessly some of these poor women will ask for money or clothes; but she always goes on to say that it is beautiful how fine some of them really are.

For months last winter our friend sent a hot dinner every Sunday to a mother: two little dishes snugly hidden under covers. The chauffeur took them week by week, always inquiring after the health of the lonely woman.

One day not long ago our friend called in to see a woman who has been ill for years. "You know, I've a lot to be thankful for," said the woman. "I've a good neighbour, and that's more than some folk have. Every Sunday last winter a rich lady sent her a hot dinner, and the minute it came she put it out on two plates, and brought it up here so that we could eat it together."

10,000 BOYS ON A KING'S LAND

No fewer than 10,000 Boy Scouts, mostly Swedes and a number of foreign guests, will camp next year on ground belonging to the royal summer palace of Tullgarn, not far from Stockholm.

An extensive survey of several camp sites was made from an aeroplane. A section of the Tullgarn royal domains was found to be ideal for the purpose, and King Gustav's permission to locate the camp there was sought and granted.

ORGANIC GLASS

What is known as organic glass is coming into favour.

Called organic because it is not made from minerals, it looks like ordinary glass, but it is much lighter. As it is not brittle it is being used more and more for observation windows in aeroplanes and for windscreens. It is still expensive, but the day may come when it will be produced much more cheaply.

On Speeding

FLOATING AERODROMES

Stages on the Atlantic Airway

A SCHEME NOW UNDER CONSIDERATION

Since commercial flying began men have been working on schemes to enable the oceans to be spanned by stages.

Artificial islands floating in the Atlantic have often been suggested by visionaries and practical engineers, but hitherto nothing has been devised which would long resist the buffeting and the stresses of the terrific storms that burst upon the Atlantic Ocean and work havoc with great ships.

At last a practical engineering scheme has been planned, which appears likely to achieve its purpose of eliminating the rise and fall due to the waves; and a London firm is investigating its possibilities.

Unmoved By the Waves

The essential feature of this scheme, which has been put forward by Mr M. E. Heiser, is the sinking of the foundations of the floating aerodrome to such a depth below the surface of the sea that the fiercest storm will not affect their stability. Sunk to a depth of 180 feet, half the height of St Paul's, these foundations would always be in calm water.

They would support an aerodrome shaped like the letter U, one of the upright strokes of this letter being a landing-stage 2000 feet long and 400 feet wide for aeroplanes, and the other a ten-foot deep lake of similar dimensions for seaplanes. The curved base of the U would be used for buildings with a flat roof 117 feet above sea-level from which heavy-laden craft could be sent out by huge catapults.

The foundations would be twelve air-filled stopper-buoys (caissons), each 300 feet long, 125 feet wide, and 10 feet deep. From each submerged buoy a huge tubular pillar, 12 feet wide, with five smaller pillars grouped round it, would rise to support the aerodrome. All would be made of steel tubing, and so add to the buoyancy provided by the buoys. Altogether the pressure on these buoys would amount to 20 million tons, stable enough to withstand the force exerted on the superstructure by a 100-miles-an-hour gale and 50-foot waves.

Generating Its Own Electricity

But would not such a storm drive the aerodrome far from its position? Undoubtedly it would, and so would currents when the sea was calm. To keep the floating island in the same region it would be fitted with twelve propellers and two great rudders.

The idea is that the wind itself would be turned to account for these purposes, being guided through windsails below the decks to drive generators for electricity to work the propellers.

This big U would be not only an aerodrome but a veritable floating harbour on the high seas. Into the mouth of the U would run for shelter all kinds of small craft. There would be an area of comparatively calm water nearly two acres in extent, while the services available for planes would meet the needs of a stricken ship.

Costing Less Than a Liner

It is estimated that a floating aerodrome like this would cost about three million pounds (much less than the cost of a liner). The establishment of two on the route between Ireland and Newfoundland would enable planes to carry less petrol and more goods and passengers, for the stages would be under 800 miles. That is to say, for the cost of a battleship the Old World and the New could be linked by air with comparative safety and with a comfort not far below that enjoyed on an ordinary liner.

At last we may look forward to the day when seadromes will appear on the map.

FARTHEST WORLD VISIBLE TO THE EYE

Uranus in a Singular Situation

EASY WAY TO FIND HIM

By the CN Astronomer

A great world which should be of much interest is Uranus, which is now well and remarkably placed between two stars of similar apparent brightness; consequently they form a triangle whose components appear so close together as to make identification easy with the aid of the star-maps below.

The first map shows this region to be immediately below the bright second-magnitude star Hamal and the stars Beta and Gamma of Aries, and lying just above the three fourth-magnitude stars indicated. All these will be readily found high up and almost due south between 7 and 8 o'clock, but the very faint stars within the circle, which includes Uranus, indicated by the letter U, will be only perceptible to good sight on a clear and dark night. Therefore glasses, even if they are only opera-glasses of low power, should be used, when the area will be found to resemble that shown in the circular star-map.

No Moonlight

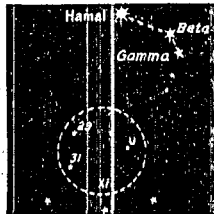
This shows stars down to the seventh magnitude which on a clear starlit night should be easily seen, in particular the two stars accompanying Uranus. These three will occupy an apparent area of the sky actually less than the apparent width of the Moon; moreover, the striking group round the star Xi will help identification. As Uranus will appear to remain almost stationary during the next fortnight, during which moonlight will fortunately be absent, all that is required is a clear night. After this the motion of Uranus will begin to become apparent as he moves toward the left, passing very close to the upper star about February 6 and 7, when an interesting spectacle will be presented.

The apparent motion of Uranus will increase, so that by the end of March he will have travelled the length indicated by the arrow. Actually the motion of Uranus is a steady 250 miles a minute, varying but little, the observed movements together with the stationary period being due to perspective resulting chiefly from our Earth's motion.

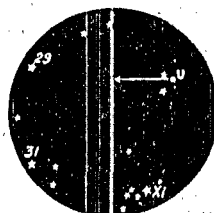
We must always remember that we view the heavens from a very rapidly moving platform and one that is tilting at a different angle toward every celestial object every minute.

Uranus will be easily distinguished by his greenish tint, due to the mysterious chemical constitution of his dense belts of cloud, the whole whirling round, in the equatorial regions of the planet, a distance of about 105,000 miles in about 10½ hours. His circumference is therefore four times that of the Earth, and Uranus has sixteen times the area to colonise and otherwise make use of, if, indeed, this is possible and desirable on a world of dim sunlight averaging about 360 times less than we receive.

It adds to the fascination of finding Uranus to bear in mind that it is the farthest world which it is possible to see with the naked eye, and that it is now about 1837 million miles away—a surprising distance at which to see a body that, like the familiar things of the Earth, only shines by reflected light. G. F. M.



Where to look for Uranus indicated by the U



Uranus (U) in the field of view of glasses, showing his path among the faint stars

DIARIES

New diaries, of every shape and kind, will find a place in hundreds of thousands of pockets this week.

Diaries and journals are no new thing. Julius Caesar was careful to preserve records of his wars, and all down the years men and women have recorded their experiences at home and abroad. Most diaries are intensely personal accounts, and thousands must have perished without ever seeing the light of day. Some of those that have come to our notice are of tremendous interest and great historical value.

Samuel Pepys and John Evelyn

There came to mind at once the diaries of two famous Englishmen, Pepys and Evelyn. Both lived in the 17th century, and both kept careful records of what happened in their own homes and in the country generally. It is curious that these two men should have met, neither suspecting that the other kept a diary, and both ignorant of the fact that one day their diaries were to become famous.

It was long after Pepys and Evelyn had passed on that their volumes were read by others; and it was long after John Wesley had written the last entry in his wonderful journal that the secret writing was translated. Once the key was found, his journal was like a doorway into 18th-century England, the England in which a plain man rode 250,000 miles, and preached with great power.

Some Amazing Records

The journals of explorers and travellers are among some of the most thrilling books ever written. The sufferings of Burke and Wills, two of Australia's noblest explorers, are revealed in the journal that was found lying by the dead body of Wills, the page open at his last entry. Charles Waterton's wanderings in South America, Livingstone's amazing record of adventures and discoveries in Africa, Darwin's journal, kept with wonderful accuracy during the voyage of the Beagle, all these are famous. Few men have ever kept a journal more faithfully than our great navigator Captain Cook; and it stirs us to think that in his last days the father of the Yorkshire seaman whose name was ringing round the world was able to follow his son's daily record of discoveries in Southern seas.

The Polar explorers have left us priceless journals, some of them written at the cost of life itself. Who can read Nansen's record of his adventures in the Farthest North without being stirred? Or Shackleton's voyage in the Quest without marvelling at the courage and endurance of men like these? For all time Captain Scott's diary, written near the South Pole till he could write no longer, must be something to inspire us.

The Story of 30,000 Days

At this time some of us will be thinking of writing a word or two in our diaries every day, but few of us will keep a diary so regularly and over such a long period as the old doctor of Tolleshunt D'Arcy in Essex. He died in 1933, and for 30,000 days he kept a diary. It has since been published, or rather part of it, for his daily record filled 80 big volumes, beating Pepys many times over.

A village doctor for 67 years, John Henry Salter was up every morning at five, beginning each day with two hours at his diary. He missed nothing. Every thing he did, the experiences he had, the people he met, were all put down in a diary which must remain one of the most remarkable ever written.

RECORDER OF LIFE IN ANCIENT ROME

Marcus Tullius Cicero

WHAT HAPPENED ON YOUR BIRTHDAY IF IT IS NEXT WEEK

- | | |
|--|----------|
| Jan. 3. Cicero born at Arpinum | 106 B.C. |
| 4. Henry George Bohn, publisher, born | 1796 |
| 5. Catherine of Medici died at Blois | 1589 |
| 6. Fanny Burney died in London | 1840 |
| 7. The French recaptured Calais | 1558 |
| 8. Galileo died at Arcetri | 1642 |
| 9. Capetown surrendered to the British | 1806 |

MARCUS TULLIUS CICERO was a great Roman author and orator who lived at the same time as Julius Caesar.

By his writings, especially his letters to his friends, we know more about the life of the Romans and how they were governed than from any other source.

We think of him as a clever writer who tells us of the thoughts of men of his time, and discusses such subjects as Duty, Friendship, and Old Age. But those who lived when he did thought of him as more than that—as a lawyer, orator, interpreter of Greek thought and literature, a successful civil servant in Sicily, the governor of a province in Asia Minor, and a consul in Rome.

Cicero lived just when Rome was changing from a Republic to a State under the masterful influence of strong generals, who established one-man rule, men like Caesar and Mark Antony.

Cicero tried to be a moderate man, holding the balance between parties. He was much admired for his cleverness, but really pleased nobody. Once he had to flee for his life to Greece, and finally he lost his life when he belonged to the weakest party. But we owe him a debt of gratitude for his writings.

THE CONDUCTOR MOVES ON

From Steelworker To Lawyer

County Durham is proud of one of its bus conductors who does not believe in standing still. He is Peter Donnelly, who is now 46, but hopes to be a Bachelor of Law at 50.

A steelworker till the works closed down in 1924, he became a bus conductor. In 1927 he won a prize for an essay which brought him a letter from Mr T. P. O'Connor, who urged him to study law. He began his studies at once, entered for Matriculation, and received a special certificate from Durham University. The Education Committee of his town recognised his merit by giving him a book on civil law; and now the man who has been punching tickets three days a week and studying the rest has been admitted to the Middle Temple.

It is a splendid record of perseverance, another proof of what a man can do if he has courage and determination and loves work and duty more than pleasure.

25 YEARS AGO

From the CN of January 1912

The New Insurance Law. Some day we shall all be proud to have seen the beginning of the Insurance Bill which has now become law. It is only the foundation-stone of the great structure of national well-doing for the nation which, little by little, will grow up, and to which men of all parties will from time to time contribute.

It is an Act of many provisions and many benefits, taking in about thirteen million men, women, boys, and girls—workers. The men pay fourpence a week, the women threepence; their employers make a payment for each, and the State adds another.



For Rosy Cheeks and Sparkling Eyes

TO see your child happy and vigorous . . . eyes bright . . . cheeks aglow with radiant health . . . What a picture to warm and gladden the heart!

You can ensure this perfect health if you remember the importance of correct nutrition. To be quite certain that your child's dietary provides all the vital health-giving elements, make 'Ovaltine' his or her regular daily beverage.

'Ovaltine' is, in itself, a complete and perfect food made from the highest qualities of malt, milk and eggs. It is rich in proteins to build up firm flesh and muscles; mineral salts and calcium to build strong bones and teeth; organic phosphorus for sound nerves; carbohydrates in their most assimilable form for energy in work and play, and the necessary vitamins for health.

But be sure it is 'Ovaltine.' There is only one 'Ovaltine'—there is definitely nothing just as good."

OVALTINE

Gives Energy and Robust Health.

Prices in Gt. Britain and N. Ireland
1/1, 1/10 and 3/3 per tin.

P.215a

Every Boy and Girl should join the League of Ovaltineys

THOUSANDS have joined and are having great fun with the secret highsigns, signals and code. Write for official rule-book and details to the Chief Ovaltiney, Dept. 31, 184, Queen's Gate, London, S.W.7.

THE SIDE LINE • A Railway Mystery

By Harold Avery

CHAPTER 15

A Special Train

NEITHER Hugh nor Jack thought it at all likely that the owner of the snuff-box would ever be traced, and they were not at all surprised when Sunday passed without any message being received from Joe. It was not until Monday morning that things began to happen which were to make the day one never to be forgotten by at least two members of the party gathered round the breakfast-table.

"Nuisance!" ejaculated Mr Blake, laying aside a letter he had been reading. "Hugh, my boy, I shan't be able to take you and Joyce to Wedmouth in the car today. I am obliged to go to Roxford to see about some important business. We shall have to send Cousin Helen a telegram."

"There's no need to do that," said Jack. "You two can have a special train—go on the Flyer; Wedmouth is only about three miles beyond Hanley Park, and you'll do it easily if you take your time. You needn't take more luggage than a handbag with you, and that can go on the back seat."

Hugh laughed at the thought of Cousin Helen's surprise when told that her visitors had travelled to Wedmouth by a special train. "What do you think?" he asked, turning to his sister.

After the enjoyable ride on Saturday morning Joyce had decided that there was no reason for her to feel nervous about going on the railway; and she had heard from the two boys that they had been as far as Hanley Park with no mishap. There was really nothing to fear.

"Yes, let's go on the Flyer," she replied. "I can work one of the levers."

"Of course you can," said Jack. "To give you a good start, I'll go with you to the other side of the tunnel, and walk back."

It was arranged that Hugh and Joyce should start for Wedmouth after an early dinner, and the cousins decided to while away part of the morning playing cricket. The game continued till it was time for the Draytons to pack their bag; they ran off to the house, and Jack was about to follow them when a man called to him from the gate opening into the road. It was Mark Groves, the blacksmith.

"I thought I'd just step up and ask if you'd seen anything of Joe Perth," said the man. "I can't find out what's become of him."

"He was with us on Saturday evening, but I haven't seen him since," replied Jack.

"It's a curious thing," Groves continued. "As he didn't turn up to work this morning, and knowing that since this trouble with his father he's been living alone, I thought the lad might have been taken ill. I went to his cottage, but couldn't make anyone hear. The door wasn't locked, so I walked in. There was no sign of Joe, and it was plain his bed hadn't been slept in, so he must have been away all night. I've made inquiries; he was seen in the village about dinner-time on Sunday, but what became of him after that no one knows."

The sound of a voice calling from the farm that dinner was ready put an end to the conversation, and Jack ran off to the house. He could not bring himself to believe that Joe had run away from home, and thought he would probably turn up again later in the day.

The three cousins were in high spirits when they started off for the station. Hugh and Joyce were longing to roam about on the sea beach, and it was fun to think they were going to travel by their own special train.

"All you have to do is to keep on till you can't go any farther," said Jack. "Then you'll be at Wedmouth, and you can leave the Flyer on the rails at the station till it's time to come back."

For the first part of the journey Hugh and Jack worked the levers, Joyce riding as a passenger. It was not till after they had passed through the tunnel that she prepared to change places with her cousin.

"Take this," she said, holding out her little electric torch; "you'll find it useful on your way back."

"Oh, I don't want it," laughed Jack. "I'm not afraid to walk through the tunnel in the dark. Well, goodbye, you two—see you again on Wednesday. Give my love to Cousin Helen."

The boy strode away, turning as he reached the mouth of the tunnel to give a parting wave of his hand. He disappeared in the darkness, and as he did so Hugh was strongly inclined to run after him and try once more to persuade him not to lend the £4 to Brunt.

"I'm sure he's heading for trouble," thought Hugh; "but it would only make him ratty if I spoke to him again."

When once a fresh start had been made Joyce found it required no great effort to work one of the levers. She and her brother made no attempt to send the Flyer along at express speed, and when they reached the crossing at Hanley Park they stopped to rest.

"It's a funny thing," began Hugh; "when we were here on Saturday we noticed that quite a wide path had been made through the bracken. Get down, and I'll show you."

Leaving the railway they climbed over the stile into the park. They reached the beaten track and, wondering why it should have been made, walked slowly down it till they were clear of the ferns; then Joyce turned her eyes in the direction of the bank of laurels which fringed the lake. With a puzzled look, she raised a hand to shade her eyes.

"It's gone—the Saracen, I mean," she murmured.

"It must have fallen down behind the bushes," said Hugh.

They found the gap in the laurels; Hugh led the way through it, and turned toward the spot where the Saracen had stood. He had not taken more than six paces when behind him there was a startled cry from Joyce. "O-oh!"

Hugh spun round, and as he did so a man sprang out of the bushes and seized his arm in an iron grip.

CHAPTER 16

Trapped

HUGH could hardly believe his eyes. "What brings you here, I'd like to know?" asked a gruff voice.

To Hugh's amazement he found he was being questioned by Stephen Hamble, and before any answer could be given there was a cracking of twigs and Brunt stepped out of the bushes. It seemed as if the two men must have been hiding in the laurels to pounce out on the Draytons, and at first the boy thought it was a joke.

"We came to look for the Saracen—the figure-head," said Hugh.

"What!" cried Brunt.

There was something so threatening in

the man's face that Hugh drew back, half expecting a blow.

"D'you mean to tell me you've come all this way to look at a figure-head?" snapped Hamble.

In a few words Hugh explained that he and his sister were on their way to visit a relative at Wedmouth, and that they had come to the lake thinking the Saracen had fallen down.

"Didn't I tell you that the next time you went to Hanley Park I'd go with you?" asked Hamble angrily.

It was like being lectured by some irate schoolmaster, and Hugh felt a bit nettled.

"We've got permission to go for rides on the railway, so there's no reason why we shouldn't."

"There is, and a very good one," was the reply. "Only the other day an old man was nearly killed at the crossing away yonder, and we are trying to prevent such a thing happening again."

"Now you've come here you'll have to stop," growled Brunt.

"But we are going to Wedmouth," Joyce protested.

"You won't go anywhere till I think it's safe," retorted Hamble sharply. "Now, keep quiet and get under cover. Here—this place will do."

He led the way to the summer-house, and the two Draytons seated themselves on one of the rustic benches. For the first time they noticed that the Juno figure-head had apparently fallen down, and was lying on the grass; of the Saracen they could see no sign. Keeping an eye on the shelter, Hamble stepped away from it and began talking in a low voice to Brunt.

"I'm afraid of those men," whispered Joyce. "They don't seem the same as they were when we met them at the poultry farm. Why have they come here? What are they doing?"

"From what Hamble said they are trying to catch the fellow who attacked Caleb Rowen. I suppose they are expecting him to come here, and think he'll keep away if he sees us wandering about. That's what has made them so ratty."

It was easy to see that the two men were angry, and as Hugh watched their faces he had an uneasy feeling that the reason Hamble had given for their being in the park was not the whole truth. For a long time they stood talking, as if trying to

JACKO AT THE PARTY

JACKO was wildly excited. He had that morning received an invitation to Chimp's New Year party. 6-9. Dancing. R S V P, it said.

"You had better answer it at once," said Mother Jacko.

"Righto!" said Jacko, dashing over to his mother's writing-desk. He pondered over his reply for a long time, but at last, after much pen-chewing, ink-splashing, and tearing up of the best printed stationery, he wrote one to his

The sight that met his eyes drew a gasp of admiration. In the middle of the room stood a huge Christmas tree, with lovely toys hanging from its branches. The object which attracted Jacko's attention most was a splendid motor-boat, suspended from a branch near the top of the tree.

Jacko thought he'd like a closer inspection, so he climbed on a chair and stretched his arm up in an attempt to unhook it.



The chair tipped forward

satisfaction and rushed off to catch the post.

On the day of the party Jacko arrived at Chimp's house half an hour too soon. The maid didn't look too pleased, but she showed him into the sitting-room.

"In here, please," she said. And Jacko sat down gingerly on the sofa to wait. After about five minutes he became rather restless and thought he'd "look round." He walked down the passage and came to an open door, and simply could not resist the temptation to peep in.

Alas for his efforts! The chair tipped forward, and Jacko, the clumsy lad, fell sprawling into the tree! It toppled over with a great crash.

Chimp's mother rushed into the room and exclaimed in horror at what she saw.

Jacko picked himself up ruefully and tried to explain that it had been an accident; but Chimp's mother was so furious at the mess he had made that she boxed his ears, and shooed him out of the room—and very nearly out of the house as well.

puzzle out the answer to some problem. Presently Brunt turned and disappeared through the gap in the laurels, while his employer walked back to the summer-house.

"He's gone to make sure the coast is clear," said Hamble curtly. "Then we'll take you home, and I'll explain to your uncle why I stopped you. As you know, there's a big bend in the line, and we can take a short cut across the fields. It's dangerous just now for anyone to walk along the line."

"My cousin Jack came with us a good part of the way," said Hugh. "He was going to walk back—"

"Well, that's his own look-out," interrupted Hamble. "If he gets hurt it won't be my fault. Now keep quiet."

Time dragged away, and at last Brunt reappeared. He said something in an undertone to Hamble, who turned and beckoned with his hand.

"Come on, you two," he ordered.

They set off, Joyce walking with Stephen Hamble and Hugh following close behind them with Brunt. Not a word was spoken till they passed over the level-crossing.

"Why, where's the Flyer?" exclaimed Hugh.

"That's all right," Hamble called back over his shoulder. "Brunt's hidden it. We don't want it to be seen standing on the line."

The two men seemed to have a good knowledge of the country; all Hugh and Joyce could tell was that they were going in a westerly direction. By field paths, and at one time for some distance along a country lane, the journey continued until, when the "short cut" appeared to have lengthened into at least two miles, the party reached a road, and a few moments later came to a halt before the entrance gate of a house which Hugh recognised.

"Why, this is Ashwood!" he cried.

Before he had time to say more he and his sister were being bundled up the path and into the house; the front door was closed behind them, and they were herded along a passage into the kitchen.

"Now listen to me," began Stephen Hamble. "I've got a reason for bringing you here, but that's my business and not yours. You needn't fear that any harm will come to you as long as you do as you're told, but if you give us any trouble you'll suffer for it."

With blank looks on their faces the boy and girl sank down on a couple of kitchen chairs. They realised that they had been tricked and made prisoners, though why this should have been done neither could imagine. Cousin Helen would think that for some reason they had been prevented from coming to her that day, while their relatives at Norcott Farm would suppose they had arrived safely at Wedmouth. A whole day might pass before any inquiry was made for them.

Any attempt to escape would have been worse than useless. That the men were in an ugly mood could be seen by their faces, and it would be dangerous to do or say anything which might fan their smouldering anger into a flame. Brunt boiled a kettle on a lamp stove, and presently the captives were given some tea with thick slices of bread-and-butter.

An hour dragged away, then another. It seemed as if the men were waiting for something to happen. When one left the kitchen the other remained to guard the prisoners. Twilight was beginning to fall when Stephen Hamble knocked out the ashes from the pipe he had been smoking and rose.

"Come with me," he said. "I'll show you a part of the house you haven't seen before."

He led the way out of the kitchen, the two Draytons following him and Brunt bringing up the rear. They ascended to the bedroom floor, then up a narrow flight of stairs to a small dark landing, where Hamble opened the door of an attic. It was bare of furniture, and was lit by a skylight.

"In you go!" said Hamble. "You'll be safe here as long as you keep quiet."

"But why should you—"

Before Hugh could finish the question he and his sister had been thrust into the attic, the door was shut, and there was the grating sound of a key being turned.

"They've locked us in!" gasped Joyce. She sprang forward and tried in vain to open the door.

"Hist!" her brother whispered. "What's that?"

Tap—tap—tap! The sound ceased, then it came again. Tap—tap—tap!

"Listen," cried Hugh excitedly. "It's someone tapping on the next wall."

In a moment it dawned on him that he and Joyce were not the only persons who had been trapped by Brunt and Hamble.

TO BE CONTINUED

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THE BRAN TUB

What Am I?

My first gives life and joy, and makes
The feathered songsters vocal.
Without my next we should not have
A habitation local.
Of usefulness my whole can boast
To sailors on a rock-bound coast.

Answer next week

This Week in Nature

THE little climbing nuthatch may now be heard in the countryside. Its note at this time is very shrill, but later on it becomes sweeter. The nuthatch is slate-grey in colour on the back, and the under-part of the body is buff. The bird breaks the nut-kernels open by placing them in a crevice in a tree and then continually tapping away with its beak until the nut is obtained.

Perhaps He Said G

THERE was a young man of
Dun D;
The people said Who can he B?
A sprightly young dame
Said, "I don't know your name;
But I C U R A Yankee."

Snubbed

A YOUNG Londoner stopped and spoke to an old man in a country village.
"And how old are you?" the young man asked after a little conversation.
"I be seven and seventy," was the reply.
"But why put the seven first?"
"Because I were seven afore I were seventy."

Ici on Parle Français



Le tapis mal La chatte cat Le feu fire

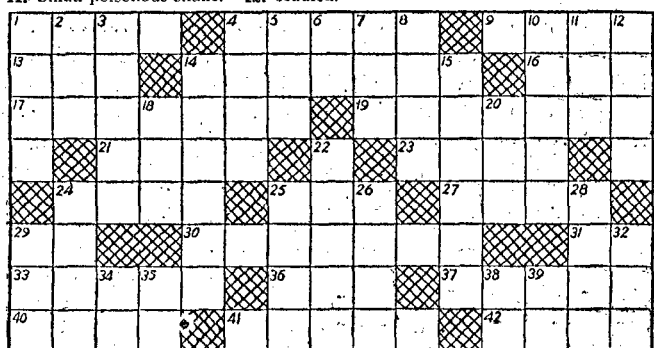
La chatte a choisi l'endroit le plus chaud. Elle est assise sur un tapis devant le feu.

The cat has chosen the warmest place. She is sitting on a mat before the fire.

The C N Cross Word Puzzle

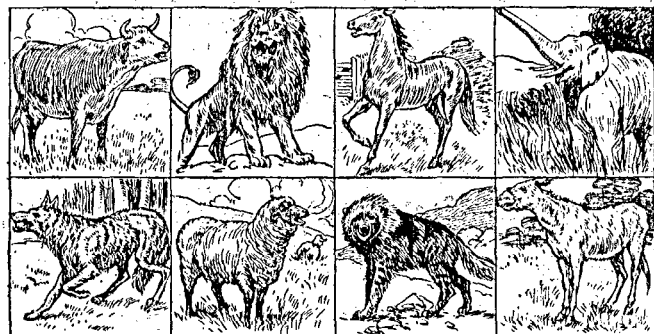
Abbreviations are indicated by asterisks among the clues below. Answer next week

Reading Across. 1. Charitable donation. 4. Indian fruit used in chutney. 9. Graceful swimming bird. 13. Busy insect. 14. Grassland. 16. Long since. 17. Account books. 19. Heraldic term for a bird of the swallow tribe. 21. Helps. 23. Welsh national emblem. 24. A bone of the forearm. 25. Assist. 27. A box. 29. Indefinite article. 30. To leave uncared-for. 31. Roman copper coin. 33. A guide. 36. Snake-like fish. 37. A bodily faculty. 40. To engrave a metal plate. 41. Small poisonous snake. 42. Hauled.



Reading Down. 1. Competent. 2. The sheltered side. 3. A commemorative disc. 4. Hinders. 5. Donkey. 6. New Testament. 7. A sticky substance. 8. Spoken. 10. Progresses on foot. 11. Length of life. 12. To set down in writing. 14. One who parades his learning. 15. Builds. 18. A trap. 20. Popular beverage. 22. Covered with slabs of baked clay. 24. An individual thing. 25. Old. 26. Printing direction meaning to strike out. 28. Comfort. 29. A monkey. 32. Unite with needle and thread. 34. Lord Chancellor. 35. An interjection. 38. Editor. 39. Near.

The Voices of the Animals



Do you know what the animals say? Identify the creatures shown here and couple them in the correct order with their voices as given.

The — roars; the — laughs; the — howls; the — trumpets; the — lows; the — bleats; the — brays; the — neighs.

Answer next week

A Puzzle Word

THESE letters when properly arranged make the name of a famous American State: AATTCEUHMSSSS

Answer next week

Other Worlds Next Week

IN the evening Venus and Mercury are in the South-West, and Saturn and Uranus are in the South. In the morning Mars is in the South-East. The picture shows the Moon as it may be seen at 7 a.m. on Wednesday, January 6.

A Congregation of Birds
THE other day we gave a number of correct terms for gatherings of certain creatures. Here are some correct terms for the bird world.

A fall of woodcocks; a wisp of snipe; a murmuration of starlings; an exaltation of larks; a siege of herons; a watch of nightingales; a nide of pheasants; a cast of hawks; a building of rooks.

A Radio Riddle

WHY was the wireless set upset? Such poor results it gave, Because it saw, to its regret, The cheeky short-wave wave!

A Puzzle Word

WHAT word has eight letters, five of which are the same?

Answer next week

Absorbing

PETER thought he could write poetry.

"I say, Peter," said John, "I found something most absorbing on your desk just now."

"Which of my poems was that?"

"Oh, not a poem; just your blotting-paper."

Charade

MY first transposed, with wretched skill

Its web perfidious weaves in vain;
Firm as a rock, secure from ill,
O truth, thou art my second still,
And ever wilt remain.
If business press or duty call,
Oh, ne'er attempt to find my whole;
But when you've no more work to do,
All duties well performed, may you Both find it and enjoy it too.

Answer next week

NATURE'S NAMESAKES



While the Swan glides smoothly over the water
the Swan-Mussel in the mud below moves about fifteen feet a day

A Writer's Odd Trick

LORD HOLLAND in 1824 wrote a Legend of Eve, containing more than 500 words, and excluded all the vowels but E. The first sentence was:

Men were never perfect; yet the three brethren Veres were ever esteemed, respected, revered, even when the rest, whether the select few, whether the mere herd, were left neglected.

A Goose's Reason

A GOOSE, my grandame one day said,
Entering a barn pops down its head.
I begged her then the cause to show.
She told me she must waive the task,
For nothing but a goose would ask
What nothing but a goose would know.

LAST WEEK'S ANSWERS

A Pied Proverb: Fine words butter no parsnips.

Picture Puzzle: Well-informed.

Behatted Word: Pink, ink, pin.

Transposition: Deal, lead.

Five-Minute Story

What the Gale Did

EARLY on the morning of their birthday the Twins were going to the town five miles away to spend a money present from an uncle.

"Phew! What a wind! We shall have all our work cut out to ride," Chloe said as they wheeled their bicycles out of the shed.

However, by the time they had been on the road for five minutes they found that the wind did not make such hard going for them as they had expected.

"We won't be long at this rate," Jim sang out, as he went round a corner a little ahead of his sister. But his last word was followed by a yell, and he braked hard only just in time to avoid crashing into a tree which lay right across the road.

"The worst place it could possibly fall, round a corner," the boy remarked, as they both stood surveying the gale's victim a moment later. "If we had been coming the other way I should have seen it some yards away, but as it was I was almost on top of it before I could see it. Lucky we weren't in a car."

"But I can hear one coming," Chloe cried in alarm. "Oh, Jim, there'll be a crash!"

"No, there won't!" he shouted. "Take the bikes while I run." And, as Chloe obeyed, the boy ran off to meet the coming car, pulling off his scarf to wave as a signal.

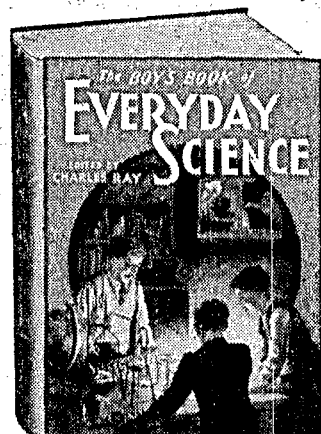
"My word, you saved me from a pretty fine smash!" exclaimed the driver, when he had pulled up within a few yards of the obstacle. "It evidently hasn't been down long and there isn't much traffic along here early, but, all the same, it's an amazing bit of luck that you discovered it before an accident happened. Look here! If I go back in the car and report to the police that the road is blocked will you stay and give warning?"

The Twins agreed, so the driver took from a case a large sheet of paper, and wrote:

DANGER! FALLEN TREE

Jim broke a stick from the tree and fixed the notice on to this, then, with this rough-and-ready flag, he went to take up his station on the road, while Chloe took her scarf to wave as a signal.

After they had given a good many warnings a policeman arrived to relieve them of their job, and men came to clear the road. But, as Jim said, it had been an exciting morning.



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